



ARMY REGULATIONS, INDIA.

VOLUME XII.

MILITARY WORKS.

Agents for the Sale of Books published by the Superintendent of Government Printing, India, Calcutta.

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ARMY REGULATIONS, INDIA.

VOLUME XII.

MILITARY WORKS.



Government of India,
Army Department, 1914.

CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
1916.

Price Annas Eight or Nine Paise.

PREFACE.

THIS volume of Army Regulations, India, contains the orders of the Government of India on military works matters. It is intended primarily for the use of the officers and subordinates of the Military Works Services (including Military Works Accounts). Such subsidiary instructions as may be necessary for the efficiency of the Military Works Services will be framed in accordance with the spirit of these orders and will be issued by the Director General of Military Works.

Officers are expected to interpret these regulations reasonably and intelligently, with a due regard to the interests of the service. No attempt has been made to prescribe for necessary and self-evident exceptions, nor for such matters of detail as should be provided for by the Director General of Military Works.

The other volumes of regulations with which the Military Works Services are concerned are:—

King's Regulations.

Army Regulations, India, Vol I, "Pay and Allowances."

" " " " II, "Regulations and Orders for the Army."

" " " " III, "Financial Instructions."

" " " " VII, "Dress."

" " " " X, "Passages."

" " " " XI, "Clothing."

Army Tables, "Establishment and Supplies."

Army Act, and Indian Articles of War.

Civil Service Regulations.

Public Works Department Codes, Volumes I, II and III (in cases where they are applicable [see Army Regulations, India, Volume III, paragraph 289 and G. G. O. No 1037, dated the 15th September 1899, paragraphs 33, 34 and 35] and in cases which have not already been provided for in the Army Regulations).

W R BIRDWOOD, Major-General,

Secretary to the Govt. of India.

(This book includes all corrections up to, and inclusive of, the April Appendix to India Army Orders, 1916.)

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Abbreviations.

A. D.	Army Department.
A. D. M. S.	Assistant Director of Medical Services.
A. F.	Army Form.
Appx.	Appendix.
A. R. I.	Army Regulations, India.
A. C. R. E.	Assistant Commanding Royal Engineer.
Bde	Brigade
Bdo. Comdr.	Brigade Commander.
C-in-C.	Commander-in-Chief.
C. G.	Comptroller General.
C. R. E.	
C. S. Regs.	
D. A. A. G.	
D. A. G.	
D. G. M. W.	
D. G. O.	Director General of Ordnance.
Divn.	Division
Divl Comdr.	Divisional Commander.
E. Accts M. W.	Examiner of Accounts, Military Works.
G. E.	Garrison Engineer.
G. of I.	Government of India
Hd Qrs.	Head Quarters
H. S.	Higher standard.
I. A. F.	India Army Form.
I. S. M. D.	Indian Subordinate Medical Department
L. S.	Lower standard.
M. S. C.	
M. W. S.	
N. C. O.	
O. C.	
P. W. D.	Public Works Department.
P. W. F.	Public Works Department Form.
Q. M. G.	Quartermaster-General.
R. A.	Royal Artillery.
R. A. M. C.	Royal Army Medical Corps
R. E.	Royal Engineers
S. and T.	Supply and Transport.
S. D. Officer	Sub-divisional Officer
T. C. E. College	Thomson Civil Engineering College.
U. I.	Unattached List.
W. O.	War Office

Definitions.

In these regulations unless inconsistent with the context :—

Bde or Divl Comdr.	.	.	.	Includes the officer in temporary command of the Bde or Divn.
Bde Comdr.	.	.	.	Includes the Divl. Comdr., in the case of stations and troops directly under Divl. Hd. Qrs.
Divl Comdr.	.	.	.	Includes the officer commanding an independent brigade.
Soldier	.	.	.	Includes warrant officer and non-commissioned officer.
Subordinate establishments	.	.	.	Means all establishments in the M. W. S. except R. E. and
Office establishment	.	.	.	" " " " " " " " " "
Petty establishment	.	.	.	" " " " " " " " " "
Local M. W. officer	.	.	.	" " " " " " " " " "
Military buildings	.	.	.	" " " " " " " " " "
Regimental buildings	.	.	.	" " " " " " " " " "
Primary buildings	.	.	.	Are those used only for dwelling purposes, e.g., barracks, quarters and hospitals.
Subsidiary buildings	.	.	.	Are the outhouses, etc., of primary or auxiliary buildings, e.g., cookhouses, latrines, wash-houses, servants' quarters, enclosures walls, etc.
Auxiliary buildings	.	.	.	Are all buildings other than the above, e.g., guard rooms, work shops, institutes, mess-rooms, offices, bakeries, stores, factories, etc.
Fixtures	.	.	.	Means all articles fixed or bolted to the structure of a building. This includes paintings and their attachments, except fringes and pulling ropes which are furniture.
Furniture	.	.	.	Means all movable articles necessary for the accommodation of the occupants of a building.

ARMY REGULATIONS, INDIA.

VOLUME XII.—MILITARY WORKS.

Organization and Administration.

1. Military works in India and all duties connected therewith are carried out by the M. W. S., except in certain localities where they are under the control of the local P. W. D. In some cases, under the orders of the G. of I., the M. W. S. carry out all civil works in a province; they may also be required to execute works for a local Government or civil department.

Execution of military works

Establishments.

2. The establishment of the M. W. S. consists of—

(a) R. E. officers who are regarded as in regimental employ, and are subject in all respects to A. R. I.

Military Works establishment

(b) Subordinate establishments—

(i) Upper subordinates.

(ii) Barrack department.

(iii) Lower subordinates.

(iv) Office, peon and petty establishments.

(c) Accounts branch—

(i) Examiners.

(ii) Accountants.

px. I. The D. G. M. W. the M. W.

3. R. E. officers in excess of the sanctioned establishment will be appointed to the M. W. S. in the order in which they join for duty, irrespective of rank. Vacancies caused by officers who are absent but not seconded, will not be filled, nor will acting appointments be made, except for C. R. Es. and A. C. R. Es.

Appointment of officers

Administration.

4. The D. G. M. W. administers the M. W. S. and is responsible for their organization, discipline, and efficiency. In submitting proposals upon matters of importance to the G. of I., he will first obtain the views of the C-in-C.

Office of the D. G. M. W.

The D. G. M. W. is responsible that no major work is undertaken until it has been authorized by the G. of I., and that no departure from standard designs is made without authority. He will inspect, or depute any officer to do so, any important works under his control.

5. The C. R. E. is responsible for the efficiency of the M. W. S. in the Divn, with the exception of those works which may be under the P. W. D. He will, under the orders of the Divl. Comdr., carry out such inspections as may be necessary.

Office of the C. R. E.

Similarly the A. C. R. E. of an Independent Bde., and the G. E., Bangalore, will be responsible within their respective charges.

The C. R. E. will make an annual inspection of the offices of the A. C. R. Es. under his command.

6. The F. Accts. M. W. is the financial adviser of the D. G. M. W., and also the independent auditor, on behalf of the G. of I., of expenditure on military works. He is responsible under the D. G. M. W. for the maintenance of financial regularity and correct account-keeping throughout the M. W. S.; at the same time he is the head of the Accounts branch of the M. W. S., and as such is directly under the orders of the C. G., with whom he will communicate freely.

Transmis-
sion of
orders
affecting
accounts,
information
from
E. Accts
M. W.
Postings
and
transfers.

7. The E Accts. M. W. will receive copies of all G. of I. orders affecting the work of his office through the C. G. or direct from the A. D.; he will submit copies of all general letters issued by him to the C. G.

8. The D. G. M. W. or a C. R. E. is empowered to call upon the E Accts. M. W. to furnish him with such information as he may consider necessary.

9. C. R. Es. and A. C. R. Es. are appointed, and other officers are posted to and transferred from Divns. and Independent Bdes., under the orders of the C-in-C. Officiating appointments of C. R. Es. and A. C. R. Es., and the transfer of all officers from one district to another, where no change of Divn. or Independent Bde. is involved, are made by the Divl. Comdr. concerned, with the prior concurrence of the D. G. M. W. in the case of officiating appointments of C. R. Es. and of officiating appointments and transfers of A. C. R. Es."

All other postings to, and transfers from, Divns. are made by the D. G. M. W. Accountants are posted direct to districts by the E. Accts. M. W. All transfers within a Divn. are made by the Divl. Comdr.

The C. G. can transfer accountants from the M. W. S. to other administrations and vice versa.

Executive.

Duties of
A. C. R. E.

10. It is the duty of the A. C. R. E. to carry out all works under his orders with due regard to good quality, expedition, and economy; to satisfy himself that no unauthorized expenditure is incurred and that no deviations are made from sanctioned designs without due authority. He is responsible under the Bde. Comdr. for the condition of all buildings in his charge.

Sub-divi-
sions.

11. To facilitate the transaction of business, sub-divisions are formed under the sanction of the D. G. M. W. They will consist of certain definite charges that may be suitably held by a G. E. or a selected upper subordinate. Europeans will usually be placed in charge of those in which British troops are quartered. Sub-divisional allowance of Rs. 30 a month may be sanctioned. The number of sub-divisions allotted to the Division of the Kohat, Bannu, etc., will be in charge of a sub-division in charge of the same, and the charge of more than one sub-division will be placed in charge when the number of sub-divisions to an aggregate of 132 distributed among Divisions and Independent Brigades as the D. G. M. W. may direct.

A Bde. Comdr. can withhold a sanctioned allowance, if he deems it desirable to do so, for any reason.

Duties of
upper
subordi-
nates

12. Upper subordinates are responsible for the good quality and prompt execution of all works under their charge. They will keep muster rolls of labour and the accounts for their works, and will see that all their employes are regularly paid. If there is no cashier or store-keeper, they will also have charge of cash and stores.

Barrack
department.

13. The barrack department establishment will, under the orders of the A. C. R. E. or G. E., carry out the duties connected with the occupation of military buildings by troops or departments, and with the manufacture, repair and distribution of barrack, hospital, and other furniture.

14. Barrack Dept. sub-divisions are formed under the sanction of the D. G. M. W. and will consist of certain definite charges. The D. G. M. W. will decide which sub-divisions, within a maximum limit corresponding to an establishment, shall carry sub-divisional charges.

The grant of the allowance to divisional commander (G. of I. C.) conditions laid down in para 11

the allowances allotted to Barracks will be disposed of under the orders of the local P. W. D. authorities.

The Brigade Commander can withhold a sanctioned allowance, if he deems it desirable to do so for any reason.

15. The duty of a store-keeper will be confined to the custody, preservation, and issue of stores, except furniture, and keeping accounts of them; he will issue stores only on an indent signed by an officer or S. D. officer Store-keepers.

16. An accountant is responsible to the A. C. R. E. for the accuracy of all account transactions and for the correct compilation of the district accounts in accordance with the prescribed rules. Duties of Accountant.

17. The estimate for a large work should make separate provision for any temporary officers that may be required, if their pay exceeds Rs. 250 a month. A report must simultaneously be submitted to the G. of I. giving details of the temporary staff required and the necessity for it, also whether any suitable men can be obtained locally Employment of temporary officers.

(i) No single salary should exceed Rs. 950 a month.

(ii) The rate of pay sanctioned for each individual cannot be increased.

(iii) Sanctions will only hold good for twelve months: if an extension is required application must be made at least three months before the sanctioned period expires

(iv) An engagement for a special work lasts till the work is finished; otherwise, and except in cases of serious misconduct, a temporary officer is entitled to one month's notice, or pay in lieu, before discharge.

(v) Temporary employes will not be graded nor gazetted.

Temporary employes may also be engaged, under the above rules, for general duties, to supplement the permanent establishment.

Personnel.

Officers.

18. Young officers should, as a rule, be kept at the Hd. Qrs of a district to learn the system of work and accounts and to study the language; they should prepare designs, plans, and estimates for works required, and may, under the orders of the A. C. R. E., visit any large works or workshops in the vicinity. Instruction of young officers.

R E subalterns on arrival in India for a first tour of service are attached for a period of 4 months to a corps of sappers and miners, under the orders of the D. G. M. W., for training before joining the M. W. S. In the case of the additional officers for the defence light sections, this attachment will come immediately after the period of one month spent at the port on arrival in India. During the period they are attached to the sappers and miners, their pay, etc., will form a charge against M. W. funds, see A. R. I., Vol. I

19. The records of service of all officers of the M. W. S. are kept by the M. S. C. Records of service.

Upper Subordinates.

total strength of the establishment increases or decreases, on the following scale, viz. :—

in of warrant and	List of
the D. G. M. W.	upper sub-
officers on the com-	ordinates.
mand adjusted, as the	Depart-
	mental
	commissions
	and
	warrants.

2/3ths of the total number of military subordinates will be divided between the commissioned and warrant ranks, in the proportion of 1 to 6, the former being sub-divided as follows:—

1st	.	.	.	.	.	.	.	.	.	.	.	Commissionaries.
2nd	.	.	.	.	.	.	.	.	.	.	.	Deputy Commissioners.
3rd	.	.	.	.	.	.	.	.	.	.	.	Assistant Commissioners.

and the latter being sub-divided as follows:—

1st	.	.	.	.	.	.	.	.	.	.	.	Contractors.
2nd	.	.	.	.	.	.	.	.	.	.	.	Sub-contractors.

The remaining $\frac{1}{3}$ ths of the total number of military subordinates are staff serjeants and serjeants.

In calculating the proportion of ranks admissible on the combined list, subordinates who join the M. W. S. or P. W. D. as passed apprentices will be regarded as being on the list only from the date of their permanent appointment, within the sanctioned scale, to the M. W. S. or P. W. D., and not from the date of their transfer to the U. I.

Military promotion is contingent on departmental efficiency, and a warrant officer is not eligible for the rank of assistant commissary unless he is a sub-engineer.

Appoint-
ments of
upper sub-
ordinates

22. Upper subordinates may be appointed to the M. W. S. from the following sources:—

Passed students of the T. C. E. College.

N. C. Os. and soldiers of R. E.

Lower subordinates.

Soldiers or civilians with practical qualifications or college certificates.

The qualifications for appointment are given in I. A. F. U. 1740, and are equally applicable to soldiers or civilians.

Passed
students
of the
T. C. E.
College.

23. Twelve British N. C. Os. will, on passing the examination, be admitted annually into the T. C. E. College. Six of these who pass highest, if within the first fifteen or sixteen, in alternate years, as the case may be, at the final examination held at the end of the two years' course, will be appointed to the M. W. S. as apprentice overseers, 1st grade, for one year, during which they will remain students of the college, but are trained in their duties by the M. W. S. On permanent appointment all military overseers, whether appointed from an engineering college or direct from their corps, receive an outfit allowance of Rs. 150.

Reserved
vacancies

24. All vacancies occurring in the upper subordinate establishment are reserved for the M. W. S. and do not apply to the P. W. D. vacancies in the lower subordinate establishment of specially qualified men. If on the 10th July there are not sufficient vacancies to absorb all the apprentice overseers, those in excess will be posted as supernumeraries on the M. W. list, their pay pending absorption being charged to the permanent establishment.

Term of
probation.

25. All overseers, except apprentices who have undergone their training, will be appointed on probation for one year, or more, if necessary.

Exchange of
upper subor-
dinate

26. Upper subordinates of the M. W. S. may exchange with those of other Administrations, with the approval of the D. G. M. W. and the head of the Administration concerned.

Recommend-
ation for
provincial
service.

27. The names of upper subordinates, recommended for promotion to the provincial establishment, will be submitted by the D. G. M. W. to the G. of I., P. W. D.

Barrack Department Establishment.

Gratuation
list for
military
promotion

28. Members of the Barrack Department are placed on a separate list for promotion in the Barrack Department (see para. 31).

NOTE—The Punjab-Bengal list will, for the present, constitute the General List which will automatically expand as the old Madras list disappears (see Appendix I, Table 2, Barrack Department).

Depart-
mental
grading.

29. The departmental grading is as follows:—

Departmental officers with hono-

rary rank and Conductors

Sub-Conductors

Staff Serjeants and Serjeants

Barrack Masters,

Assistant Barrack Masters.

Barrack Serjeants

Recruit-
ment.

30. Barrack department subordinates will be recruited from regiments and corps. Applications from candidates should be submitted on I. A. F. U-1740, which gives the necessary qualifications for appointment.

General.

31. One messenger is allowed for each officer and, when absolutely necessary, one for each S. D. officer. Other office servants will be sanctioned separately for the Examiner's, C. R. Es., A. C. R. Es. and G. Es. offices as required.

32. Movements due to privilege leave of upper and lower subordinate members of the barrack department, and clerks, draughtsmen, cashiers and storekeepers of all grades, will be reported to the C. R. E.

All movements of officers, and movements not due to privilege leave of upper subordinates, lower subordinates, 1st and 2nd grades, members of the barrack department, clerks drawing above Rs. 70 per mensem, draughtsmen, cashiers and storekeepers of all grades, will be reported to the G. O. M. W. and those of other subordinates to the G. R. E.

Paragraph 33.—After the words "C S. Regs." in line 2 insert a ^{Oct. Appx} comma and add "except as provided for in Army Regulations, India." _{I. A. O.—1917.}

to joining time, local, travelling and acting allowances (except that they receive temporary promotions from grade to grade).

The appointment of a substitute in place of an upper or lower

Add the following :—

" 33-A.—A civilian (other than a menial) on appointment to the permanent establishment of the M. W. S. shall be required to sign

I. A. F. Z-2055."

"	"	"	"	"	"	"	havildar	7	
"	"	"	24	"	"	28	"	as jemadar	15
"	"	"	25	years' service,	as	sabadar			30
"	"	"	32	"	"	if of unblemished character			
						and specially recommended			50

He may, however, take the pension of his actual military rank should it be higher. Pension can only be claimed after 15 years' service and when the applicant has been recommended unfit for further service.

service, the pension of

If an Indian soldier service is pensionable

to the department in his service. An Indian

soldier on the U. L. may be granted leave under the uncovenanted service leave rules, provided that the State is put to no extra expense.

35. Permanent military upper subordinates and members of the Examination

[illegible]

subordinates of the R. W. D. (See R. W. D. Code.)

37. Leave to a civilian in the M. W. S. can be granted by the authority Leave.

who would fill up his appointment if vacant except in the case of establishments and leave of all

from the A. O. B. Es., G. E.,
Central Workshop, Burki, are the

to clerks in any grade and all grade and below is sanctionable

by C. R. Es., and privilege leave to any clerk employed under them is sanctionable by A. C. R. Es. and the G. E., Rangoon. The application

of a civilian must be made, through his immediate superior, and the officer who keeps the applicant's service book should certify that the

leave is admissible. c 2

The remaining $\frac{2}{3}$ ths of the total number of military subordinates are staff serjeants and serjeants.

In calculating the proportion of ranks admissible on the combined list, subordinates who join the M. W. S. or P. W. D. as passed apprentices will be regarded as borne on the list only from the date of their permanent appointment, within the sanctioned scale, to the M. W. S. or P. W. D., and not from the date of their transfer to the U. I.

Military promotion is contingent on departmental efficiency, and a warrant officer is not eligible for the rank of assistant commissary unless he is a sub-engineer.

Appoint-
ments of
upper subor-
dinates

22. Upper subordinates may be appointed to the M. W. S. from the following sources:—

Passed students of the T. O. D. College.

N. C. O.s and soldiers of R. E.

Lower subordinates.

Soldiers or civilians with practical qualifications or college certificates.

... given in I. A. F. U. 1740, and

Passed
students
of the
T. O. D.
College.

... passing the examination, be
... Six of these who pass
... as the case
... ears' course,
... grade, for
... go, but are
... ment all

military overseers, whether appointed from an engineering college or direct from their corps, receive an outfit allowance of Rs. 150.

Reserved
vacancies.

21. All vacancies occurring in the upper subordinate establishment between the 1st May and 16th July of each year will be reserved for the absorption of the six passed apprentices; this rule does not apply to the thirteen mechanical and electrical engineering posts, vacancies in which will be filled as they occur by the appointment of specially qualified men. If on the 16th July there are not sufficient vacancies to absorb all the apprentice overseers, those in excess will be posted as supernumeraries on the M. W. list, their pay pending absorption

Term of
probation

Exchange of
upper subor-
dinates

Recommend-
ation for
provincial
service.

to the provincial establishment, and to submission of ...
to the G. of I., P. W. D.

Barrack Department Establishment.

Gratuation
list for
military
promotion.

28 ...
for pa ...
in the ...
para. ...

... constitute the General List
... appears (see Appendix L)

Depart-
mental
grading

... rank and Conductors

Sub-Conductors

Staff Serjeants and Serjeants

Barrack Masters.

Assistant Barrack Masters.

Barrack Serjeants.

Recruit-
ment.

30. Barrack department subordinates will be recruited from regi-
ments and corps. Applications from candidates should be submitted on
I. A. F. U-1740, which gives the necessary qualifications for appointment.

46. Serious cases of misconduct or neglect of duty on the part of civil upper subordinates must be reported to the D. G. M. W. If a lower subordinate, who has passed through the T. C. E. College, is dismissed, the fact, with the cause of his dismissal, should be communicated to the Principal. Misconduct of civil subordinates.

47. All members of the M. W. S. (except civilian clerks at presidency towns, see Vol. VI) are entitled to gratuitous medical attendance, in cantonments from the staff surgeon, elsewhere from the civil surgeon or medical subordinate according to whether they are drawing over or under Rs 250 a month. Attendance at a distance of five miles or more should not be required of a medical officer, except under extraordinary circumstances; if the distance is more than two miles the cost of conveyance for the medical attendant will be paid by the patient. Medical attendance.

48. In the case of large works on which many persons are employed the officer in charge should apply to the Bde. A. D. M. S. for special medical assistance, the cost of which will be sanctioned under the rules for increase to establishment. Medical attendance for large works.

50. All unusual losses in the manufacture of munitions and serious accidents connected with works should be reported by the local M. W. officer to his immediate superior. Unusual losses and occurrences.

51. The D. G. M. W. is empowered to sanction the supply of tents for M. W. purposes in accordance with the C. S. Regs. They should be obtained through the ordnance department. The usual hire charges must be paid on account of tents obtained for the personal use of individuals not entitled to free quarters. Tents for Government purposes.

Military Land and Buildings.

Land.

52. No military land shall be taken up or occupied by any civil department, for any purpose whatever without the sanction of the Government of India in the Army, the Personal Commander and Quartermaster situated on military land shall acquire by any civil department of the local government on all such proposals should be recorded. Before negotiations are entered into with the civil authorities for the d to will

kept in repair by the M. W. S.

54. In every station a fixed datum level and other permanent bench marks connected with the great trigonometrical survey should be established and recorded. All levels on the cantonment plans should refer to this datum. Boundaries of cantonments and barracks

55. The A. C. R. E. or G. E. is responsible for the proper drainage of the cantonment, and no work, public or private, affecting the general drainage scheme shall be commenced without his approval. Datum and levels in cantonments.

Roads.

56. No old road in a cantonment may be closed or new one opened without the sanction of the Divl. Comdr and no road may, in the first instance, be metalled at the public expense without the sanction of the G. of I. except a cantonment fund road in a self-supporting cantonment which may be metalled with the sanction of the Divl. Comdr, provided the cost involved can be met from existing provision in the budget estimate of the cantonment. Roads in cantonments.

Classification and maintenance of roads in cantonments.

57. Classification and maintenance of roads in cantonments.

- (a) *Imperial Civil or Provincial Roads*.—These consist of the sections of the main arterial communications of the country, ~~required for all purposes independent of the~~ existence of civil . . . as the remainder of the roads of which they form a part
- (b) *Imperial Military Roads*.—These are roads required for purely military purposes, such as those within the lines occupied by regular troops, or leading from those lines to the railway station, or to the main lines of communication of the country, or those effecting communication between the main roads in the cantonment and buildings used for military purposes. The cost of maintaining these roads is met from military works funds.
- (c) *Cantonment Fund Roads*.—These are roads required merely for the convenience of residents in the cantonment; they are maintained from cantonment funds.

The classification of roads in each cantonment will be considered by the Standing Barrack Committee.

(For procedure see Army Regulations, India, Volume II.)

Buildings.

Standard designs.

58. Deviations from standard designs of buildings which affect authorized areas or general principles of construction, require the sanction of the G. of I. and, if no standard plan of a regimental building exists, the design must be approved by the G. of I. The D. G. M. W. can authorize deviations from standard designs of buildings provided that authorized areas and general principles of construction are not altered and the cost is not materially increased.

Numbering of buildings.

59. Every regimental building will have a distinguishing number conspicuously painted on it, by which it will be entered in the return of public buildings; each room in a building will also be numbered and its area, cubic contents, and the purpose for which it is used, will be painted on one door. The number of lamps allowed for each barrack or separate portion of a barrack, ward or reading room of a hospital, sergeants' mess, or prayer room used by British troops, will also be painted on one door.

Return of public buildings, Record Plans.

60. A detailed register of the accommodation provided by every building shall be maintained on the return of public buildings.

61. The following plans must be kept on record:—

- (i) In C. R. Es.' offices—
Plans of all cantonments in the Divn.
Copies of all standard and type plans.
- (ii) In A. C. R. Es.' and G. Es.' offices:—
Cantonment plans.
Block plans of each set of barracks, scale $\frac{1}{800}$.
Record plans of military land.
Plans of roads.
Record plans of all buildings and works.
Copies of standard and type plans.

All fair drawings submitted to Army Hd. Qrs. or the G. of I. should

Re-appropriation of buildings.

permanent, and a state-acks is not affected, may be sanctioned by the Bdo. Comdr., provided that the purpose to which it is to be appropriated is authorized. If the purpose is an unauthorized one, it can only be sanctioned by the Divl. Comdr. and any expenditure involved requires the sanction of the G. of I.

The O. C. the station may sanction a temporary re-appropriation, if urgently necessary, provided that it does not affect the dormitories or day rooms of the men, or the quarters of the N. C. Os. Such temporary re-appropriations must be reported at once to the Bde Comdr and sanction must be renewed annually.

The D. G. M. W., or the local Government concerned, with the previous concurrence of the Divl. Comdr. in the case of buildings in P. W. D. charge, may sanction the loan of military buildings which are not rentable or required for military purposes to regimental or cantonment authorities or other public bodies, on the understanding that they are kept in proper repair and relinquished without claim for compensation if required for military purposes. The D. G. M. W., with the approval of the C-in-C., may lend any vacant military building to a local Government.

63. Proposals for the demolition or sale of military buildings will be submitted on I. A. F. W-1819. G. Os' C. Divns. and Independent Bdes. may sanction such proposals (except as regards remount buildings) subject to the following conditions:—

- (i) That the book value of the building does not exceed Rs. 2,500.
- (ii) If the building has to be replaced, that it is an authorised one, that the cost of replacement will not exceed Rs. 2,500 and that the G. O. C. is prepared to find the necessary funds from his grant for minor works.
- (iii) That no question of the transfer of military land is involved.
- (iv) That, in cases where it would be practicable for the local

Disposal of
military
buildings.

through the Bde. and Divl. Comdr. to the D. G. M. W. for approval in the case of stations under the M. W. S., and to the local Government or Administration concerned, through the Q. M. G. in the case of stations under the P. W. D.

In the case of remount buildings at stations under the M. W. S. the proposals will be submitted by the G. E. through the A. C. R. E. and the Superintendent of the Remount Depot concerned to the C. R. E.

matter at once to the Bde. Comdr.

65. Inspection houses are sanctioned, where necessary, for the use of officers and subordinates of the M. W. S.

Inspection
houses.

66. The following are the principles on which volunteers may be

Buildings
lent to
volunteers.

1 be

the

The

- (iii) If they are again resumed, the G. or I. will compensate the corps for any outlay on additions or alterations, but not on repairs.

(iv) If the corps ceases to exist, the buildings will revert to the G. of I.

Intimation
of com-
mencement
work.

67. When any new work or extensive alterations or repairs to a building are about to be undertaken, due notice should be given to the O. C. or departmental officer and, if necessary, the building should be taken over by the local M. W. officer for the purpose.

Inflammable
materials.

68. The erection of inflammable screens, partitions and the like is

Water
tanks.

69. For all military buildings with inflammable roofs, or walls, water

Lightning
conductors.

Butts and
ranges.

be maintained by the M. W. S., but compensation for damage to cultivation is not debitable to the M. W. grant. Rifle ranges must be maintained in good repair by the corps in charge; repairs to, or renewal of, the wood-work or masonry of firing platforms, 'markers' butts, galleries and trenches will be carried out by the M. W. S. When a corps is absent the range will be taken over and maintained by the M. W. S.

Covers for
wells.

72. All Government wells, the water from which is used for drinking or cooking purposes, are to be provided by the M. W. S., with covers to prevent contamination.

Irrigation
of soldiers'
gardens.

73. Wells, reservoirs and water-courses, for the irrigation of soldiers' gardens, will be constructed and maintained by the M. W. S. Where Persian wheels are used they will be supplied complete in the first instance by the M. W. S. and thereafter repaired regimentally.

Punkahs.

Punkahs.

74. Punkahs are authorized in the following military buildings for British corps:—

Barracks, dining halls, hospitals, and quarters for all regimental warrant officers, school-mistresses, N. C. Os., soldiers, and their families; regimental institutes, liquor bars, sergeants' messes, orderly, guard, school, and prayer rooms; offices, workshops, and cells (if specially recommended by the medical officers); also in the public quarters of officers, lady nurses, commissioned, warrant and N. C. Os. of the U. L., the I. S. M. D., and those in staff employ.

Punkah fringes, pulling ropes, and canes will be supplied free, except in the case of officers' quarters (other than those of the U. L. and I. S. M. D.) and liquor bars.

Punkahs
to be con-
nected.

75. The local M. W. officer is responsible that all punkahs are economically and efficiently connected, wherever practicable, in trains.

Quarters.

Assessment
of rents.

76. Rents for all public quarters are assessed in accordance with the following rules under which the U. R. E. is authorised to fix the rent of a building except when otherwise fixed by the G. of I.:—

I.—The annual rent shall be sufficient to cover interest at 3½ per cent. on the capital cost of the building and its site, together with the average annual charges for maintenance and repairs.

II.—The capital cost includes the cost of the building and its site. If the house was constructed on land purchased by Government, the value of the site will be the price paid for it by Govt.; if not, it will be the value at the time these rules are first applied. If the site was Govt.

land originally, then only such further outlay as may have been incurred on the site should be included. If there is no record of the cost of the building, by construction or purchase, its value should be assessed by the A. C. R. E. and approved by C. R. E. In the case of houses purchased by Govt., the capital cost will be the price actually paid for the property together with the amount of the works outlay incurred by Govt. in altering, restoring or improving the building. When the capital cost is greatly in excess of the real value, application should be made to the G. of I. for sanction to the reduction of value, particulars being given as in para. 85.

The D. G. M. W. may decide what proportion of the cost of renewals due to fire or other cause should be charged to the capital cost, but must report his decision to the G. of I.

III.—Maintenance
annual and quadren
for special repairs.

IV.—Establishment
in either the capital cost or maintenance charges.

V.—If a part of a building is used as an office for which accommodation is authorised, the rent shall be proportionately reduced.

VI.—Assessments of rents of buildings occupied by Divl. Comdrs. shall be fixed by the D. G. M. W.

77. Additions and improvements to an officer's quarters are authorised only in a case when the enhanced rent, due to such alterations, and assessed according to rule, falls within the maximum limit. Additions and improvements

Para. 77, sub-para.—In line two after the words "D. G. M. W." add "or" of the Local Governments and Administrations concerned in the case of rentable buildings in their charge." Oct. Appx
I. A. O.—1918.
M. W. 302d.

are maintained, ———— which Capital and Revenue accounts

78. The rent charged to a Government official shall not exceed 10 per cent. of his salary (including local allowances), but, if drawing presidency house-rent, the limit shall be increased to the extent of that allowance. The maximum rents chargeable to military officers are laid down in A. R., I., Vol. III. Rent chargeable to Government officials.

NOTE.—In the case of members of the upper subordinate establishment and temporary upper subordinates of the M. W. S. (supervisors and overseers) and apprentices overseers who were in the service on the 19th May 1911, the maximum monthly rents chargeable are as stated below:—

	Rs.
Supervisors, 1st grade	15
Do., 2nd grade	10
Overseers, 1st grade	7
Do., 2nd and 3rd grades	6

79. The rent to be paid by any Government servant whose salary does not exceed Rs. 50 a month may be fixed by the D. G. M. W. or remitted altogether. If his salary (including local allowances) is over Rs. 50 and not over Rs. 100 a month, the D. G. M. W. will fix the rent subject to a minimum of 5 per cent. of salary or the assessed rent of the building whichever is less. Officials drawing less than Rs. 100 a month.

80. When two or more officers occupy one set of quarters, the rent shall be charged proportionately to each. Quarters occupied jointly

81. When a private house is hired on any terms the rent shall be paid as follows:—

tenants for vacant
hall be charged at
d it is not less than

Tenants for vacant buildings.
Rent chargeable to a private person.

A. R. I., Vol. XII.

Insert the following as paragraph 81-A.

81-A. G. O's. C. Divisions and Independent Brigades may sanction temporary reductions or remissions of the rent of military buildings within their jurisdiction, occupied by Government servants, provided that such reductions or remissions do not involve a loss to the State of more than Rs. 100 in the case of any particular building or of any individual person during one financial year, and that a report, together with a statement of the reasons for which the concession has been granted, is made at once to the D. G. M. W. and the Examiner of Accounts, M. W.

July Appx.
L. A. O.-2919.
8517 M. W.

The exercise of these powers should be confined to cases which are not covered by para. 79 or para. 81, and in which the levy or recovery of the full rent due under the ordinary rules would be inequitable in the public interests or would, for special reasons, constitute hardship.

- i. Actual value of the house and site.
- ii. Rent chargeable under the rules.
- iii. Salary, including allowances, of the officer.
- iv. Date proposed for grant of free quarters.
- v. Specific grounds for the concession.

Rent lists. 87. Rent lists will be prepared on P. W. F. 41A. and submitted at the end of each month by the local M. W. officer, in the case of—
Regimental officers . . . to the O. C. unit.
Staff officers and officers R. A. M. O. . . to the officer concerned.
Departmental officers and subordinates . . . to the senior officer of the department.

Officers in civil employ . . . to the treasury officer concerned.

When a staff officer, or officer of the R. A. M. O., quits his quarters

to the date of relief, unless he produces a special certificate from the local M. W. officer altering this date.

Rent from pensioners and private persons is to be recovered monthly in advance by the A. C. R. E.

Bills for electricity consumed in Government buildings will be similarly prepared and submitted.

M. W. subordinates not entitled to quarters 88. Subordinates of the M. W. S. (except those of the barrack department) are not entitled to public quarters; but if allowed to occupy them they will pay the assessed rent subject to the maximum laid down in para. 78

Quarters for unmarried school-mistresses. 89. An unmarried school-mistress is not to be allotted quarters in a detached building or in the block for married rank and file, but should be given class A quarters in the staff sergeants' block.

Scale of furniture.

Furniture.

Furniture designs.

provided the general principles are not altered and the cost is not materially increased.

92. An annual verification of the furniture in charge of corps and departments will be made on or about the 31st March by the officers who make the quarterly barrack inspections. An officer, or subordinate of the barrack department, will also be deputed to count the furniture in store, and certify to its existence. Annual verification of furniture.

From the ledgers thus checked the distribution returns (I. A. F. W-1814), and the annual register of furniture in the station I. A. F. W-1815) will be compiled.

Works.

Procedure.

93. Original works include all new works, additions to existing works and repairs to newly purchased works. They are divided into three classes:— Classification of works.

- (a) Special works are works the cost of which exceed Rs. 50,000 those forming part of a general scheme costing Rs. 50,000 or more, and those which irrespective of their cost the Government of India order to be placed in this class.
- (b) Ordinary major works are works costing more than Rs. 2,500 but less than Rs. 50,000.
- (c) Minor works are works costing not more than Rs. 2,500. Expenditure on a work costing less than Rs. 10 may be charged to the repairs grant.

93-A. Alterations and renewals or extensive repairs, which entail the substitute of a superior for an inferior class of work, will be treated as original works for budget purposes and in the accounts during execution; that is, provision to meet the whole expenditure involved will be made under 'original works.' On the completion of the work, if the final cost exceeds the value of the old work less the value of any of the old materials utilized, the difference between the two will be treated as a charge "Original works" and the remainder as a charge against 'repairs': if the final cost is equal to or less than the value of the old work less the value of materials utilized, the whole expenditure will be charged to 'repairs': An application will then be submitted for a reappropriation of such portion of the grant from 'original works' to 'repairs' as may be necessary to allow of that portion of the expenditure debitable to 'repairs' being charged to that head. When the adjustment has been made, the 'original works' portion of the cost will be added to the capital value of the building in the Annual Return of Public Buildings. If the cost of the new work is less than the value of the old work less the value of materials utilized, the difference will be deducted from the capital value. Renewals.

94. Before any work can be carried out all of the three following conditions must be fulfilled:— Preparation and sanction of estimates.

- (a) Administrative sanction must have been accorded to the execution of the work under general or special orders.
- (b) Technical approval to the detailed estimate must have been given by the authority mentioned in para. 104.
- (c) The expenditure must have been sanctioned by competent authority (see A. R., I., Volume III) and funds allotted. When an allotment for a special or ordinary major work appears in the final issue of the budget estimate, this condition may be regarded as having been fulfilled in respect of that work.

95. In the case of ordinary major and minor works which have been authorised by the Government of India in the regulations or by separate orders of general application, no further administrative sanction is necessary.

sary. In the case of special works or major works which involve a departure from standard designs and authorised arrangements the approval of the Commander-in-Chief or the head of the department concerned, and the sanction of the Government of India to the details of the scheme will be obtained by the D. G. of M. W. or P. W. D. For unauthorised minor works see A. R., I., Volume III.

95. A If it is found when necessary to be made

approved detailed estimate, a report on the subject should at once be made to superior authority. In the latter case the report will be made by means of a work slip.

Sanction to a work in parts. Funds not transferable.

96. Sanction may not be accorded to carry out in portions a work the total cost of which is beyond the powers of the sanctioning officer.

97. Funds allotted to a work may not be utilized on any other work without re-appropriation by the competent authority.

In first clause of paragraph 98 before the word "Division" insert Oct. Apps. I. A. O.—1918.
Command". M. W. 6567.

For clearance themselves

Railway defence works.

99. The construction of defence works, such as bridge block-houses, etc., on railways, if within a reasonable distance of a M. W. district, will be carried out by the M. W. S, unless the railway administration concerned consider that this course cannot be adopted with safety to the railway.

If the work is undertaken by the railway

Troop sidings.

work will be carried out by the railway concerned. When the amount of land required is considerable it may be taken up and paid for by the M. W. S. and marked off as military land, otherwise it will be included in the railway land.

Civil Works.

Relations with civil officers.

101. M. W. officers should assist civil officers with reports and rough estimates of the cost of any proposals, but detailed estimates and designs should not be prepared for works costing more than the civil officers concerned can sanction.

Procedure for civil works

102. A civil officer will submit a requisition for any work he may require to be done by the M. W. S. If funds are available, and it is

or local Government concerned or submit it to the G. of I. for orders.

In the Baluchistan Agency and North-West Frontier Province, provincial civil works will be dealt with by the C. R. E. under the orders of the local administration.

G. Os. O. Divns. and Bdes. are not concerned with the administration of civil works funds or civil works executed by the agency of the M. W. S., which are dealt with by the officers of the M. W. S., under P. W. D. Code rules.

In the case of works connected with ecclesiastical buildings, special rules are laid down in P. W. D. Code, Volume III, Appendix 10, on the subject of the sanction required for various classes of these works.

The powers of the officers of the M. W. S. in regard to civil works estimates and excesses thereon, are regulated in accordance with P. W. D. Code rules, the C. R. E. corresponding to the rank of Superintending Engineer, A. C. R. E. to that of an Executive Engineer, and G. E. to that of an Assistant Engineer.

The limits of civil works are different from those prescribed in the case of military works expenditure.

103. Contribution works are those executed from funds of a public nature (not Government funds), or from subscriptions by the public. If a work is to be done partly from Government funds and partly by subscription, the latter will be treated as an addition to the Government grant and the work executed under the usual rules. The money must be paid into the treasury before any liability is incurred, unless its receipt by instalments is authorised by competent authority. The design and estimate will be prepared in the usual manner, but, prior to the work

charge to keep the authority concerned informed of the progress of the work and of any excess or deficit anticipated.

Estimates.

104. The C. R. E. has power to sanction estimates for sub-heads manufacture operations and, Sanction to estimates.

or large projects covered by lump sum sanctions; works for other departments, if urgent or the head of the department concerned has not sufficient powers; contribution works; furniture.

The C. R. E. of a Divn. has similar powers within a limit of Rs. 25,000, except in regard to new works forming part of a project sanctioned by higher authority, in which case he must be specially empowered.

The C. R. E. has also power to approve estimates for manufacture operations irrespective of limit when the material is for a work already duly sanctioned or for reserve stock within the sanctioned limit of the district concerned.

A. C. R. Es. have similar powers up to Rs. 10,000, except in regard to new works forming part of a project sanctioned by higher authority, in which case they must be specially empowered.

The powers of officers officiating as C. R. Es. and A. C. R. Es. are limited to Rs. 10,000 and Rs. 2,500 respectively. In special cases the D. G. M. W., can, at his discretion, enhance the powers of officiating officers up to the limits specified for permanent C. R. Es. and A. C. R. Es. He can, also at his discretion, reduce the technical powers of any individual officer by name.

G. Es. have power up to Rs. 500 in regard to estimates for minor works, for subsidiary works of large projects covered by lump sum sanctions, and for contribution works, but may be empowered by the C. R. E. to approve estimates beyond that amount but not exceeding the limits of a minor work.

Form of
estimate

105. An estimate should contain—

- (i) A list of references with a précis of the correspondence calling for the work.
- (ii) A report explaining clearly the necessity for the demand, the reasons for the design adopted, and any other points that require elucidation.
- (iii) A general specification describing the different kinds of work proposed and referring to the standard specifications in use in the district, with full details of specifications and rates for all works not included in the standard lists.
- (iv) Calculations for stability of structure and strength of materials used, where necessary.
- (v) Detailed measurements of all the works to be carried out.
- (vi) An abstract giving the total quantities and rates of each kind of work with the cost in rupees; all incidental expenses such as compensation for land, sheds for workmen, etc., should be included, with an addition of 5 per cent. on the total for unforeseen contingencies. Any work establishment required will also be entered. The total cost of the whole will be given. For a large project consisting of several separate works, an abstract of each should be given and the totals brought together on a general abstract showing the cost of the whole project.

The estimate forms are I. A. F. W-1793-1798.

Before submitting any estimate for consideration, the Local M. W. Officers should obtain the approval of the Officer Commanding or departmental Officer concerned, and of the Officer Commanding the station or Brigade Commander.

Drawings to
accompany
estimate.

106. The drawings to accompany a project will usually consist of—

- (i) A site plan with all details necessary.
- (ii) Plans of the ground floor and foundations of a building, of each floor if required, and of the roof.
- (iii) Such sections and elevations as may be necessary to show the dimensions of the building.
- (iv) Working drawings of details.

Scales and full dimensions should be given and every sheet should be

Road
project.

w; levels and
road and the
of the drains

- (iii)
- (iv) Drawings of all structures proposed.

For submission to the G. of I. a road project need only contain a report with a brief note on the proposed gradients, a general map, an abstract of cost, and plans of any important works.

When any new road has been completed a correct plan of it should be

Bridge
estimate.

giver
area
prop

Paras.
estimates.

A. F.
para.

to complete the authorised scale due to new patterns, increase of scale,

or articles having become unserviceable. Special estimates are only necessary when the requirements could not be foreseen and included in the annual estimates.

110. A schedule of rates with standard specifications for each kind of work in common use in the district will be maintained in the offices of the A. C. R. E. and G. E. Schedule of rates and specifications.

Execution of works.

111. A work establishment consists only of men temporarily employed on a particular work for subordinate supervision or accounting for stores and labour, whose pay must not exceed Rs. 250 a month and must be covered by the current and sanctioned rates in the estimate; it does not include the establishment of an office clerk. work establishment.

Purchase of stock

work up to Rs 200.

113. The A. C. R. E. or G. E. will bring to the notice of the Bde. Comdr. or O. C. the station any work to be carried out from M. W. funds on which the troops may be suitably employed. Military labour will ordinarily be employed on a system as nearly similar to the contract system as is possible. The rates to be paid will not exceed those at which similar work in the same locality could be carried out by civil contract, the C. B. E. being the sole authority for deciding that such rates are not excessive. Payment will be made direct to the O. C. the troops who will determine the amounts to be paid to the men, and also will, as in the case of a civil contractor, be required to meet from his contract payments all extra expenditure connected with the employment of the troops, including any excess over the rates of compensation for dearness of provisions provided with Employment of military labour.

the employment of military labour will be accepted against the military estimates, and no working, engineer and sapper pay will be issued to men engaged on or proceeding to or from such employment. These rules will also apply to work executed for the P. W. D. or Railway Department.

114. If during the progress of a work, further work, which was not allowed for in the estimate, is required, a supplementary estimate may be submitted; and if a sanctioned estimate is likely to be exceeded, a revised estimate should be submitted with a statement on I. A. F. W-1799 showing the causes of the anticipated excess Supplementary or revised estimates.

115. When an excess on a work occurs so late as to render the submission of a revised estimate useless, the explanation of such excess, if over 5 per cent., will be given on the completion report (P. W. F. 45A); provided the outlay on the work has been recorded by sub-heads; otherwise the report of completion will be entered on P. W. F. 45E, showing the works completed during the month. Completion reports.

116. The office of final record for the completion report will be that of the authority who sanctioned the final fair estimate for work, except in the case of estimates sanctioned by the Secretary of State or G. of I, when the office of record will be that of the D. G. M. W. The completion report will be forwarded by the A. C. R. E. to the C. R. E. of the Divn. The latter will forward the completion report to the E. Accts. M. W., which will be shown in the off-able items statement, or Audit Note.

In the case of works or repairs executed on requisition (I. A. F. W-1853), the certificate at the foot takes the place of the completion report.

Completion
certificates.

117. On the completion of any work or repairs, a completion certificate on P. W. F. 45B, or, if the work was executed on a requisition, the requisition (I. A. F. W. 1833) should be forwarded to the officer concerned for signature.

Official
note books.

118. Every officer and upper subordinate will keep a note book, which will be treated as an official record, and in which he will enter any orders he may have received and all matters of interest regarding works in progress.

Repairs.

Classification
of repairs.

119. Repairs (or maintenance) includes all work, except as described in paras. 93 and 93-A, necessary to keep works in proper condition. They are classed as "periodical," i.e., those carried out at fixed intervals, as white-washing, painting, etc., with any items contingent on these; and "occasional," those which become necessary from time to time.

Periodical
repairs.

120. The following are the principal periodical repairs:—

Half-yearly—

White-washing guard rooms and cells, and walls of barracks built of sun-dried brick or mud plastered.

White or colour-washing hospital wards, unless walls are treated with washable distemper or oil-paint.

* Renewal of the earthen floors of latrines for British troops.

Annual—

Internal colour-washing of officers' quarters, the walls of which are of sun-dried brick or mud-plastered (but see Note 3).

White-washing barracks, latrines, all hospital buildings other than wards, and such other buildings as may require it.

Repairs to plaster and relaying tiles.

* Renewal of earthen floors of the stables of British mounted corps and station veterinary hospitals.

Internal white-washing of quarters and barracks of Indian troops in charge of the M. W. S.

White-washing cook-houses, except those in regular use, which may, if necessary, be white-washed quarterly.

Biennial—

Internal colour-washing of the following buildings:—

Main rooms in officers' quarters, mess-houses, quarters for regimental warrant and non-commissioned officers and married rank and file, departmental officers, unattached list and I. S. M. D. warrant officers and non-commissioned officers, and departmental civilian employés, sergeants' messes, offices, institutes (except liquor bar portion), prayer rooms, and schools.

Triennial—

New coating on thatched roofs.

Quadrennial—

External scraping and colour-washing of buildings.

Painting of woodwork, ironwork, and furniture

Note 1.—Any building may be lime-washed on sanitary grounds on the requisition of the medical or veterinary officer in charge.

Note 2.—The main rooms under "Biennial" include sitting, dining, bed, and dressing rooms, but not bath-rooms, pantries, sculleries, and such like rooms.

Note 3.—Quadrennial oil-painting may be substituted for annual colour-washing of sitting and dining rooms of officers' quarters, the walls of which are of sun-dried brick or mud-plastered.

Repair
estimate.

121. In order to arrive at the cost of maintenance of each class of works

* The refuse earth from the floors of stables and latrines is to be removed outside cantonment limits.

the end of the financial year, but the repairs may be completed, the expenditure being treated as if against a fresh estimate for the current year, which will consist of the unspent balance brought forward on a revised abstract for sanction. Any taxes payable on public buildings will be included in the annual repairs estimate.

122. To facilitate the preparation of periodical repair estimates standard measurements of all buildings are maintained in G. Es. and A. C. R. Es' offices. A. C. R. Es. are responsible that standard measurement books exist for all lines and important buildings in their charge, that the books are corrected up to date and that all alterations are verified and initialled by an officer.

Standard
measure-
ments.

123. The repairs to metalled roads consist of:—

Road
repairs.

(i) Collection of metal

(ii) Consolidation of metal, including renewal of berms.

(iii) Maintenance

(iv) Repairs to bridges and other buildings.

The renewal of metal should be so arranged that equal proportions should be done each year; the estimate should be accompanied by a road diagram showing the date on which each portion was last renewed and the quarry from whence the metal would be obtained. For unmetalled roads a maintenance estimate only is necessary.

124. The renewal and repair of stable floors of a permanent nature or of the earthen floors of the stables and outstandings of station veterinary hospitals, and the renewal of the earthen floors of the stables of British units and Indian cavalry regiments who are in occupation of lines in charge of the M. W. S. will be carried out by the M. W. S., and generally executed in dry weather. The repair of the earthen floors of stables, and the renewal and repair of the floors of outstandings of British units and Indian cavalry regiments, who are in occupation of lines in charge of the M. W. S., must be carried out regimentally. The special renewal of earthen floors of standings and the disinfection of stables after an outbreak of infectious or contagious disease will be carried out under the rules in A. R., I, Vol. II.

Repairs to
stable
floors.

125. Government wells in cantonments are cleaned and repaired by the M. W. S., and those on established district camping grounds under the orders of the local Government.

Repairs to
wells.

The cost of cleaning wells at established district camping grounds forms a charge against Provincial funds.

Stores.

126. Stores must be counted at least once a year and a certificate to that effect given on the registers for the 30th September; all important stores must be counted by an officer.

Stock-
taking.

127. The rules regarding stock apply equally to furniture.

Furniture.

128. All surplus stores not likely to be required for twelve months should be reported to the A. C. R. E. for disposal. Unserviceable stores should be entered at once on a survey report (F. W. F. 42D) for the orders of the A. C. R. E.

Stores,
surplus and
unservice-
able.

Appendix I.
Authorized Scale of M. W. S. Establishment.
1. Distribution of R. E. Officers and their charges.

Division.	M. W. S. Branch.	C. Divl. R. E.	A. C. H. E.	O. E.	Total.	Stations.	REMARKS.
Army Hd. Qrs.	7*	...	...	...	7	.....	...
1st (Peshawar) Divn.	...	1	...	...	...	.....	Administrative officer, and Secy. F. W. D., to Chief Commissioner, N. W. F. Province.
	1	...	...	Peshawar, Cherat, Khyber and outposts.	
	1	...	...	Nowshera, Risalpur, Mardan, Malakand, Chitral.	
Kohat Bde.	1	...	...	Kohat, Samana, Kurram.	Administered directly under the R. E. of W. The M. W. S. has charge of Civil Works, also, Dispo ditto.
Bannu Bde.	1	...	...	Bannu, Tochi.	Ditto ditto.
Deraajat Bde.	1	...	...	Dera Ismail Khan, Tank, Jandola, Mortaza, Wana, Drasinda, Mogalkot.	Ditto ditto.
2nd (Rawal Pindi) Divn.	...	1	...	...	...	.....	Administrative officer.
	1	...	...	Rawal Pindi, Hassan Abul, Morree, Barian (Thobba), Kuldana, Gharial, Upper Topa, Lower Topa, Campbellpore, Attock, Jhelum, Sialkot.	
	1	...	...	Abbottabad, Dargali, Kalabagh, Khanpur, Ohara Daka, Changlagali, Khyragali.	
	...	1	...	...	...	.....	Administrative officer.
3rd (Lahore) Divn.	1	...	...	Ferozepore, Lahore Cantonment, Lahore Fort, Multan.	
	1	...	...	Jalandur, Amritsar, Bakloh, Dharmasa, Dalhousie.	
	1	...	...	Ambala and Simla Hills.	
4th (Quetta) Divn.	...	1	...	...	...	.....	Administrative officer and Secy. F. W. D., to A. G. G., Baluchistan.
	1	...	...	Quetta Military and outposts, Quetta Civil, Chaman, Mastung and outposts.	
	1	...	...	Loralai and outposts.	
	1	...	...	Karachi, Hyderabad (bind), Sekkur.	
5th (Mhow) Divn.	...	1	...	...	...	.....	Administrative officer.
	1	...	...	Mhow, Nasirabad, Neemuch, Ajmere, Khandwa.	
	1	...	...	Jubbulpore, Pachmarhi, Saugor, Kamptee, Nagpur (Sitabuldee).	
	1	...	...	Jhansi, Nowgong, Sebare.	

* Includes Director-General, Deputy Director-General, 3 Assistant Directors-General, 3 Deputy Assistant Directors-General, and Inspector of Machinery.

APPENDIX TO INDIA ARMY ORDERS, 1918.

SECTION 12.

GOVERNMENT OF INDIA,

ARMY DEPARTMENT;

Dated Simla, the 1st October 1918.

THE following corrections to Army Regulations, India, Volume XII, are promulgated by direction of the Right Honourable the Governor General in Council :—

CORRECTIONS.

Corrections to volumes contained in this Appendix are :—

Section	I.	A. R., I.,	Vol.	I.
"	2.	"	"	II.
"	3.	"	"	III.
"	4.	"	"	IV.
"	5.	"	"	V.
"	6.	"	"	VI.
"	7.	"	"	VII.
"	8.	"	"	VIII.
"	9.	"	"	IX.
"	10.	"	"	X.
"	11.	"	"	XI.
"	12.	"	"	XII.
"	13.	Regulations for the Discharge of British Soldiers serving in India.		
"	14.	Army Tables, Medical.		
"	15.	"	"	Batt'y. of R. H. A., Q. F. 13-pr. guns.

Note 1.—Corrections affecting the "Selections from the Army Regulations, India, for the use of officers of Civil Departments of the Government of India" are denoted by two vertical black lines, one on either side of the correction.

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Corrections—continued.

[illegible]

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"	7.	"	VII.
"	8.	"	VIII.
"	9.	"	IX.
"	10.	"	X.
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Corrections—continued.

Section 16.	Army Tables, Batty. of R. F. A., Q. F. 18-pr. guns.
" 17.	Batty. of R. F. A., Q. F. 4·5-inch Howitzer, 1914 (P. I.).
" 18.	Batty. of R. G. A., B. L. 4-inch or 30-pr. guns.
" 19.	Batty. of R. G. A., B. L. 5-inch.
" 20.	Mountain Battery (British or Indian), B. L. 10-pr.
" 21.	Company of R. G. A.
" 22.	Ammunition Columns, Sections of R. H. A. and R. F. A. (Q. F. 13 and 18-pr.)
" 23.	British Cavalry.
" 24.	Indian Cavalry and Bodyguards.
" 25.	British Infantry.
" 26.	Indian Infantry.
" 27.	Fort Armaments.
" 28.	Engineer Units.
" 30.	Frontier Garrison Artillery.
" 31.	Transport.
" 32.	Miscellaneous Services.
" 32-A.	Miscellaneous Services, Part I.
" 33.	Regulations for Magazines in India, and Care and Preservation of War Matériel.
"	War Establish-
" 38.	War Manuals (less Medical), and Tables of Books, Forms and
" 39.	
" 40.	ing (Military).
" 41.	Classification Handbook of Army Receipts and Charges.
" 42.	Standard Tables for calculating Field Forecast Estimates.
" 43.	India Army Form Z-2000.
" 44.	Manual of Indian Military Law.
" 45.	Instructions for the payment of British Troops serving in India.
" 46.	Selections from Army Regulations, India, for the use of Civil Officers of the Departments of the Government of India.
" 47.	Mobilization Store Tables for the Field Army.
" 48.	Instructions, I. T.
" 49.	Instructions, Staff.
"	Territorial R. F. A., B. L. 5-inch
"	Territorial R. F. A., B. L. C. 15-pr.
"	Indian Addendum.
" 53.	Army Tables, Ammunition Column, R. F. A., 4·5-inch Howitzer.
" 54.	Battery of Mountain Artillery (B. or I.), B. L. 2·75-inch guns.
" 55.	Battery Territorial R. F. A., Q. F. 18-pr. guns.
" 56.	Rules and Regulations, Indian Defence Force (Provisional).
" 57.	Army Tables, Machine Gun Company.
" 58.	Army Tables of a Divisional Signal Company, 1917. (Provisional.)
" 59.	Equipment and Mobilization Store Tables of a Garrison Battalion of British Infantry, 1918.

 Corrections—continued.

- | | | |
|---------|-----|--|
| Section | 18. | Army Tables, Batty. of R. G. A., B. L. 4-inch or 30-pr. guns. |
| " | 19. | " " Batty. of R. G. A., B. L. 5-inch. |
| " | 20. | " " Mountain Battery (British or Indian), B. L. 10-pr. |
| " | 21. | " " Company of R. G. A. |
| " | 22. | " " Ammunition Columns, Sections of R. H. A. and R. F. A.
(Q. F. 13 and 18-pr.) |
| " | 23. | " " British Cavalry. |
| " | 24. | " " Indian Cavalry and Bodyguards. |
| " | 25. | " " British Infantry. |
| " | 26. | " " Indian Infantry. |
| " | 27. | " " Fort Armaments. |
| " | 28. | " " Engineer Units. |
| " | 29. | " " Frontier Garrison Artillery. |
| " | 30. | " " Transport. |
| " | 31. | " " Miscellaneous Services. |
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| " | 33. | Regulations for Magazines in India, and Care and Preservation of
War Matériel. |
| " | 34. | Instructions for Armourers, India. |
| " | 35. | Price Vocabulary of Stores, Indian Addendum. |
| " | 36. | Field Service Regulations, Part II, Indian Supplement, War Establish-
ments, India: Mobilization Regulations, India. |
| " | 37. | Field Service Manuals (less Medical). |
| " | 38. | War Manuals (less Medical), and Tables of Books, Forms and
Stationery taken into the Field by the Army in India. |
| " | 39. | Training Manuals, including Musketry Regulations (but less Medical). |
| " | 40. | Field Service Manual (Medical), War Manual (Medical), Medical Train-
ing (Military). |
| " | 41. | Classification Handbook of Army Receipts and Charges. |
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| " | 49. | Instructions, Staff. |
| " | 50. | Mobilization Store Tables, Battery Territorial R. F. A., B. L.
5-inch Howitzers, Indian Addendum. |
| " | 51. | Mobilization Store Tables, Battery Territorial R. F. A., B. L. C. 15-pr.
guns, Indian Addendum. |
| " | 52. | Mobilization Store Tables, Battalion Territorial British Infantry,
Indian Addendum. |
| " | 53. | Army Tables, Ammunition Column, R. F. A., 45-inch Howitzer. |
| " | 54. | " " Battery of Mountain Artillery (B. or I.), B. L.
2 75-inch guns. |
| " | 55. | " " Battery Territorial R. F. A., Q. F. 18-pr. guns. |
| " | 56. | Rules and Regulations for the Indian Defence Force (Provisional). |
| " | 57. | Army Tables, Machine Gun Company. |
| " | 58. | Army Tables of a Divisional Signal Company, 1917 (Provisional) |
| " | 59. | Equipment and Mobilization Store Tables of a Garrison Battalion of
British Infantry, 1918. |
| " | 60. | Army Tables M. L. 2-inch Trench Howitzer and 3-inch Stoke's Trench
Howitzer, India, 1918. |

TO INDIA ARMY ORDERS, 1919.

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2.	"	" II.
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5.	"	" V.
6.	"	" VI.
7.	"	" VII.
8.	"	" VIII.
9.	"	" IX.
10.	"	" X.
11.	"	" XI.
11-A.	Clothing Regulations, India, 1919 (Provisional).	
12.	A. R., L.	Vol. XII.
13.	Regulations for the Discharge of British Soldiers serving in India.	
14.	Army Tables, Medical.	
15.	"	Batty. of R. H. A., Q. F. 13-pr. guns.
16.	"	Batty. of R. F. A., Q. F. 18-pr. guns.
17.	"	Batty. of R. F. A., Q. F. 4.5-inch Howitzer, 1914 (P.I.)
18.	"	Batty. of R. G. A., H. L. 4-inch or 30-pr. guns.
19.	"	Batty. of R. G. A., B. L. 5-inch.

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Corrections—continued.

- Section 20. Army Tables, Mountain Battery (British or Indian), B. L. 10-pr.
 " 21. " " Company of R. G. A.
 " 22. " " Ammunition Columns, Sections of R. H. A. and R. F. A.
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 " 23. " " British Cavalry.
 " 24. " " Indian Cavalry and Bodyguards.
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 " 60. Army Tables, M. L. 2-inch Trench Howitzer and 3-inch Stoke's Trench
 Howitzer, India, 1918.
 " 61. Army Tables for a Machine Gun Squadron, India, 1918.
 " 62. Army Tables for a Motor Machine Gun Battery, India, 1918.

M. W. S. Establishment.—Appx. I.

Division.	M. W. Branch.	Dist. C. R. F. A. C. H. F. A. G. F. A.	Total.	Stations.	REMARKS.
(Poona) Div.	...	1	...	...	Administrative officer.
	1	Poona, Kirkee, Belgum.	
	1	Ahmednagar, Aurangabad.	
	1	Bombay, Deolali, Khandala.	
	...	1	...	.....	Administrative officer.
	1	Dehra Dun, Chakrata, Roorkee, Lansdowne, Kailana, Saharunpur, Landour.	

Appendix I, Table 1—Distribution of R. E. officers and their July Appx. On page 21 in column 1 opposite "7th (Meerut) Divn.," as 1. A O—1917 2717 M. W. and by Odr. Appx. to I A O's, 1917. remove "Fatehgarh" after "Bhim Tal" and insert it after "Benares" opposite "8th know) Divn."

(Lucknow) Div.	...	...	1	Distributed as	...	Allahabad, Cawnpore, Benares.	Note—Sikkim and Shillong are administered by the local Governments concerned.
	...	...	1		...	Fort William, Alipore, Darjeeling, Dinapore.	
	...	...	1		...	Barrackpore, Dum-Dum, Ishapore, Cossipore.	
	...	1	...	...	...	...	Administrative officer.
	...	...	1	...	...	Secunderabad and Bolaram.	
(Secunderabad) Divn.	...	...	1	...	...	Bangalore, Bellary	
	...	...	1	...	...	Madras, St Thomas' Mount, Wellington, Ootacamund, Lovedale, Coonoor, Cannanore, Calicut, Malapuram and Trichinopoly.	
Aden Bds.	...	...	1	1	2	Aden	Administered directly under the D. G. M. W. The M. W. S. have charge of civil works also.
Barma Divn.	...	...	...	1	1	Rangoon River Defences	Administered directly under the D. G. M. W. The other Military Works in Barma are administered by the local Government.
TOTAL	...	...	...	...	115	Officers	
Allowance for full high, deputa- tion, etc.	...	...	...	...	20		
AND TOTAL	...	...	...	...	144	Officers.	

2. Subordinate Establishments.

Upper subordinates.

Grade.	Scale	Staff salary.	Consolidated salary.	Authority who appoints and promotes.	REMARKS.
		Rs.	Rs.		
Sub-engineers, 1st grade . . .	8	250	400	D.G.W.W.	(a) Must hold sub-eng- neer's certificate from T.C.E. College, or possess "special and superior qualifications" before pro- motion to this grade.
" " 2nd " . . .	7	200	300	"	
" " 3rd " (c) . . .	14	150	250	"	
Supervisors, 1st " . . .	18	120	200	"	
" 2nd " . . .	31	100	150	"	
Overseers, 1st grade . . .	75	85	100	"	

Notes.—1.—Proportion of various grades to established scale.—

Barrack Department.

Class.	Scale.	Pay.	Authority who appoints or promotes.	REMARKS.
<i>Barrack Masters.</i>				
Commissary	1	As in A. R. I, Vol I.	D. G. M. W.	
Deputy Commissary	2		"	
Assistant Commissary	3		"	
Conductors	12		"	
<i>Assistant Barrack Masters.</i>				
Sub-Conductors	21	"	"	
<i>Barrack Sergeants.</i>				
Staff Sergeants and Sergeants	68	"	"	

Lower subordinates.

Grade.	PAY.				Authority who appoints.
	Scale.	Minimum.	Quinquennial increment.	Maximum.	
Sub-overseers, 1st grade	67	{ 50 45	10	{ 70 65	D. G. M. W.
" " 2nd "	71	{ 35 32	5	{ 45 42	C. R. E. of Divn.
" " 3rd "	43	{ 30 28	5	{ 35 33	"
TOTAL	181				

NOTE 1.—The D. G. M. W. may sanction a small increase of pay to a deserving sub-overseer instead of promoting him.

Notes 2.—For special services and on special recommendation the D. G. M. W. may sanction an extra increment of Rs. 10 to a man who has been 15 years in the 1st grade and 20 years in the department, and a second extra increment of Rs. 10 after a further service of 5 years.

Norm 3—The maximum average pay of all sub-overseers in the M. W. S. must not exceed Rs. 50.

TABLE I.

Office establishment of the D. G. M. W.

Post.	Authorised scale.	Pay	Authority who appoints or promotes.	REMARKS.
		Rs.		
Chief clerk	1	600	D. G. M. W.	
Superintendent	1	500		
"	1	400		
<i>1st Division</i>				
Assistant	1	350		
"	1	300		
Assistants	2	250		
"	2	200		
"	2	170		
"	2	140		
<i>2nd Division.</i>				
Clerk	1	200		
"	1	180		
"	1	160		
"	1	120		
Clerks	2	100		
"	3	80		
"	3	70		
"	3	60		
"	3	60		
"	3	40		
Draughtsmen	1	150		
"	1	120		
"	1	100		
"	1	80		
Daffries	3	10—24*		
Jemadar	1	12—15		
Poona	2	10		
"	3	9		
"	6	8		

Rising by
biennial in-
crements of
Rs.

* Rising by biennial increments of Rs.

TABLE II.

Office establishment of the Divisional and District offices of the M. W. S.

Post.	Authorised scale.	Pay.	Authority who appoints or promotes.	REMARKS.
		Rs.		
Clerks	3	250	D. G. M. W.	
"	4	200		
"	5	150		
"	10	125		
"	18	100		
"	20	80	C. R. E.	
"	22	70		
"	33	60		
"	42	50		
"	55	40		
"	62	30		

TABLE II.—*contd.*

Office establishment of the Divisional and District offices of the M. W. S.
—*contd.*

Post.	Authorised scale.	Pay.	Authority who appoints or promotes.	REMARKS.
		Rs.		
Draughtsman	1	120	D. G. M. W.	
Draughtsmen	6	100	"	
"	6	90	"	
"	6	80	"	
"	9	70	"	
"	10	60	"	
"	9	50	"	
"	7	40	"	
Cashiers	7	60	"	
"	4	50	"	
"	3	40	"	
"	2	30	"	
Duffries	6	10—2—20	C. R. E.	
Dufftr	1	12—15	"	
Duffries	3	8—10	"	

Petty establishment.

Post.	Scale.	Pay.	Authority who appoints or promotes.	REMARKS.
		Rs.		
Storekeepers	2	80	D. G. M. W.	} Must furnish adequate security deposit
"	4	70	"	
"	7	60	"	
"	8	50	"	
"	10	40	"	
"	12	30	"	
Artificers (a)	8	35—3—45	"	
"	1	30—2—40	"	
"	8	25—1—30	"	
Lascars	2 (b)	6-5-4	C. R. E.	

(a) Present incumbents should not be replaced, except with the special sanction of the D. G. M. W., the intention being ordinarily to employ men temporarily as work charge against the work for which they are engaged.
(b) These appointments cease after present incumbents become non-effective.

TABLE III.

Peon establishment of the M. W. S. in Divisions and Districts.

Post	Scale	Pay.	Authority who appoints or promotes.	REMARKS.
		Rs.		
Peon	1	20	C. R. E.	
Peons	8	15	"	
"	2	14	"	
"	25	12	"	
Peon	1	11	"	
Peons	12	10	"	
"	42	9	"	
"	65	8	"	
"	164	7	"	
"	137	6	"	

NOTE.—1 appointment on Rs. 30, 1 on Rs. 14 and 9 on Rs. 12 in the 4th (Quetta) Division will be reduced, as soon as present incumbents vacate them, to 4 appointments in that Division on Rs. 10 and 7 on Rs. 9.

Appendix II. Local allowances.

To which members of the M. W. S. are entitled.

	Presi- dency house- rent at Calcutta Madras, and Bombay.	Presi- dency allow- ance at Calcutta, Madras, and Bombay.	Lower Burma.	Upper Burma.	Bal- uchistan and beyond the N.-W. Fron- tier.	Dar- jeel- ing.	Nilgiri Hills.	Bombay and Karachi	Ootacamund.	Pachmarhi.
	Rs.	Rs.	Rs.	Rs.	Rs.					Rs.
Officers . . .		As laid down in			A. R. I., Vol. I					
Upper Subordi- nates.										
Sub-Engineers .	20	50	50	80	80	...	...			20(j)
Supervisors .	10	{ 50 80(d) }	50	60	60	25%(d)	25			20(f)
Overseers .	10	{ 50 15(a) }	40	40	40	25%(d)	20			20(f)
Lower Subordi- nates, etc.										
Sub-Overseers	...	20(b)	20	20	(e)(g) (A)	25%(d)	(c)	(e)		20(j)
Storekeepers .	...	...	...	...	(b)	...	(c)	(e)		
Clerks . . .	...	...	...	(c)	(e) (A)	...	(c)	(e) (f)		5(j)
Cashiers . . .	...	...	...	...	(b)	...	(c)	(e) ...		
Draftsmen .	...	...	...	...	(b)	...	(c)	(e) (f)		
Peons (perma- nent).	...	5(b)	...	...	...	...	50%	...		

A. R., I., Vol. XII.

Appendix II.—

Add the following new column :—

Loralai
District.

In this column insert (k) against "Sub-overseers", "Storekeepers", "Clerks", "Cashiers" and "Draftsmen" and add as a footnote :—

"(k) Permanent employees of any of these classes when serving in the Loralai District are entitled to a local allowance at the rate of 50 per cent. on salary. "Baluchistan allowance is not admissible in addition to the Loralai allowance."

regard to the local circumstances.

(i) Sub-overseers, storekeepers, civilian clerks, cashiers, and draftsmen of the M. W. S. serving in the Wellington District receive 20 per cent. on salary, subject to a maximum of Rs. 40 and a minimum of Rs. 10 per month.

These allowances will be reduced by 20 per cent. in the case of those men who are provided with free quarters.

(j) This allowance will be reduced by 50 per cent. in the case of those men who are provided with free quarters.

Oct. Appx.
I. A. O.—1919.
Case No. 8199.
(M. W. I.)

UNITS.	NUMBER OF QUARTERS TO BE BUILT.					
	Lieutenant-colonels	MAJORS.		Captains (single).	Lieutenant-tenants (single).	Junior married officers.
		Married	Single.			
Royal garrison artillery—						
3 companies with lieutenant-colonel, adjutant, instructor in gunnery, and inspector of ordnance machinery.	1	2	1	1	3	5
2 companies with lieutenant-colonel and inspector of ordnance machinery.	1	2	...	1	3	3
1 company.	...	1	...	...	2	1
British mountain batteries—						
2 batteries.	1	2	1	3	6	4
2 " " " " " "	1	2	...	3	4	2
Indian mountain batteries—						
4 batteries.	2	3	...	3	5	5
3 " " " " " "	1	3	...	1	4	3
2 " " " " " "	1	2	...	...	3	2
1 battery.	...	1	...	...	2	1
British infantry—						
1 battalion.	1	2	1	3	8	6
Hd. qrs wing.	1	1	1	2	5	3
Detached wing.	...	1	1	1	4	2
Indian cavalry regiment.	1	1	...	2	2	2
" infantry battalion.	1	1	...	2	2	2
Company of sappers and miners or company of submarine miners.	...	...	...	...	1	1
Officers of the staff R.A.M.C., I.M.S., or departments—						
Lieutenant-colonels.	Full number	...	...	...	...	...
Majors.	1 to 5	Full number	...	...	...	...
6 to 8	...	6	...	...	...	...
9 to 13	...	9	...	...	...	...
1 to 4	...	...	...	...	...	Full number
Captains.	5 to 8	...	...	...	...	5
9 to 13	...	...	...	...	...	9
Lieutenants.	1 to 3	...	...	...	...	2
4 to 7	...	...	...	...	...	4
8 to 12	...	...	...	...	...	8

Scale of quarters for departmental officers, warrant and N. C. Os. Construction of quarters for departmental officers, warrant and N. C. Os. and civilian recruited and

Quarters have been constructed for departmental officers warrant

6. Departmental officers with honorary rank, other than those of the I.S.M.D., Classification of

sub-
qui-
suc-
of
the
Wt-
given.

subordi-
nates.

Class B (detached).—Commissionaries; deputy commissioners; senior assistant surgeons with the honorary rank of captain; and the following civilian gazetted and non-gazetted officers and subordinates of the ordnance department:—

Chemists of the cordite factory; chief mechanical engineers; civil chief master armourers; chief examiners of machine guns; chief foremen plumbers; chief foremen tanners; chief ordnance examiners; chemist of the gun and shell factory, Cosmipore; and principal foremen of factories.

Class B (semi-detached).—Assistant commissioners; senior assistant surgeons with the honorary rank of lieutenant; head overseers of the ordnance department; and the following civilian ordnance gazetted and non-gazetted officers of the ordnance department:—

Carriage examiners; chemist and metallurgist; chief draftsmen; chief foremen of fitters and turners; electricians ranking as foremen; foremen; master forgers; mechanical engineers; and ordnance examiners.

Class C (semi-detached).—Civilian mechanics, assistant foremen, and electricians ranking as assistant foremen, in the ordnance department.

Class D (semi-detached).—All U. L. and I.S.M.D. warrant officers; barrack masters, 1st class; and overseers and assistant overseers of the ordnance department.

Class D (built in blocks).—All U. L. non-commissioned officers; soldier mechanics; carnatic artificers employed in factories; cutter, H. ordnance

ordnance department.

7. The provision and maintenance of the

located in buildings built will be arranged for by the contingent allowances of the officers.

British Troops.

8. The establishments of all units are given in the Army Tables.

9. The authorized accommodation per man in dormitories is 90 sq. ft floor area and 140 sq. ft of floor area, 12½ to 14 sq. ft. of floor area, for two rows of beds only, and placed between adjoining doors,

Establish-
ments.
Accommoda-
tion author-
ized in the
plans.

exclusive of the space in the unoccupied inner verandahs on the other side of the barracks

Accommodation authorized in the hills.

10. The hill type of hut for single men should be 22 feet broad with a 6 ft. verandah in the clear in front. Each single man should be provided with 66 sq. ft. of floor area and 660 c.-ft. of air space. Dining halls, with kitchens attached, are provided in separate buildings on the scale of 10 sq. ft. per man. The size of the huts will depend on the sites available, but they should be built to accommodate a whole, half or quarter company each. For married men the huts should be 24 ft. broad, and divided by partition walls into rooms of sizes authorised for each rank.

Fire places should be given in preference to stoves, and more windows than doors should be provided in the single men's huts, their size and position depending on the climate of the station.

In hill stations in Poona, Mhow and Quetta Divisions (except at Quetta

Double-storied barracks.

Sites for barracks in the hills.

Band barracks.

Serjeants' quarters.

Barrack store-rooms.

Scale of family quarters.

Design of family quarters.

School master school mistress

Fire-pump
Amenities

12. The best sites are those on the summit levels. When a barrack is constructed on a terrace cut out in the hill side, care should be taken to cut off the

14. Quarters for single serjeants should be placed at the ends of single men's barracks. In the hills, a quarter should be attached to every hut in which the number of men exceeds 18, or to every two huts of 19 each. Whichever hut type is selected the verandah in front of the serjeant's quarter will be an open one.

15. A small store-room about 10 ft. by 8 ft. should be given at the end of each company or half company barrack for the arms and kit of men in hospital, company stores, etc.

16. Family quarters will be provided on the following scale:—

In the R. A. for 56 per cent. of the staff serjeants and serjeants, and 4 per cent. of the rank and file.

In British cavalry for 40 per cent. of the staff serjeants and serjeants and 3 per cent. of the rank and file.

In British infantry for 33 per cent. of the staff serjeants and serjeants

and 3 per cent. of the rank and file.

Quarte

children. When provision has to be made for an uneven number of quarters, the odd quarter will consist of two rooms, each 16' x 13' and two rooms each 13' x 10' in the plains, and two rooms each 13' x 12' and two rooms each 13' x 11' in the Hills. This scale will also be provided for a detached quarter, but with a verandah on three sides only in the plains.

17. For married quarters, single storied buildings should usually be provided, on well raised plinths, partition walls between quarters to be carried to the roof, covered passages should connect with the out-offices, but their sides should be left open; front verandahs to be 12 ft. wide, and end and back verandahs 10 ft. wide in the clear; where the verandahs are more than 2 ft. above the ground, railings should be given.

in the walls of barracks. Recesses with movable shelves, but without doors, should be provided in the walls of sitting and bed rooms in all quarters.

21. Iron suspension rods for lamps are to be provided in all barracks as Lamp rods, fixtures.

22. The provision of ceiling cloths in all warrant officers', sergeants', and married men's quarters, may be sanctioned by the Divl. Comdr. where considered absolutely necessary.

23. Cook-houses are to be attached to the dining halls. One large cook-house will be built between two company dining halls, but separate Warren's ranges will be provided for each company. The floors should be stone-paved, having a slope into a drain to facilitate washing the floor, this drain should discharge into a receptacle outside the building, sunk as little as possible below the ground. The sink receptacle should also be outside the building and above ground level. Self-closing doors with panels of wire gauze should be provided for all doorways, and wire gauze fixed in the windows in place of glass, if desired by the local authorities. The words "chopping block for firewood" should be painted on the wall over that article.

24. Each family quarters is to have a separate kitchen. For semi-detached houses, the cook-houses should be built at the ends of the block, the cook-houses raised on a raised metal path place of chulias. In

the hills the cook-houses may be placed in either of the three positions shown in type-plan No. 10—Hotted Camps, and are to be provided with stoves.

25. The floors are to be paved or flagged and laid with a slope of 1 in 16 from the wall to a central drain, which will carry away the water (see para. 26). Gratings are to be supplied in private ablution rooms. In old barracks having a drain down the centre of the stone floor of the lavatory, or under the place where the men have to stand in front of the basin stands, gratings may be supplied to cover the drain. Gratings are classed as furniture, and basin stands as fixtures. The private bath-rooms are to have doors with fastenings, and pegs to hang clothes on. The height of lavatories is to be 9 ft. in case of a pent roof and 12 ft. if the roof is flat.

26. For the removal of waste water from wash-houses etc. a small main dry drain beyond the precincts of the barracks, with earthen drains

Latrines.

27. Latrine accommodation for married sergeants and married rank and file should be provided on the scale of one seat for every five quarters for the men. Commodes are to be provided in the bath-rooms of the quarters for women and children.

28. The buildings will usually be of wood framing with open bamboo work attached, reaching to within 1 ft. of the ground. Height to the beam 7 ft. The gables to be left open, but the eaves to project sufficiently to keep out the sun. The urine trough (which is a fixture) will lead into a filth receptacle at the opposite end of the building to the entrance. A box for dry earth to be provided.

29. Planking need not be given under the roof coverings of servants' quarters and subsidiary buildings in the hills, which are not intended for occupation during the winter.

30. A shed for storing dry earth may be provided for each battery or company, R. A. for 2 squadrons of a British cavalry regiment, and for each wing of a British infantry battalion, at places where necessary owing to the climate, and where sufficient storage room is not given in the latrines.

31. Where an officer's mess has been provided in a convenient situation, court-martial and officers' rooms will not, as a rule, be required and the pay office may be attached to the orderly room. Officers' rooms will not be provided, except under special sanction. A 10 ft. verandah should be given at front, back, and one end.

32. Ring bolts should be built into the walls or floors of the quarter guard which the treasure chest can be fastened.

Quarter guard.

Detention rooms. 31. The distance between the iron bars of doors and windows in detention rooms should not exceed 5 inches. The distance between the bars of windows in the detention rooms.

Rear guards. 35. Rear guards will not be given, except in certain localities, and under the special sanction of the G. of I.

Serjeants' mess. 36. The serjeants' mess should be in a central position, and, in the case of small bodies of men, may be under the same roof as the staff serjeants' quarters. Planked ceilings may be given under the sanction of the Divl. Comdr.

Institutes. 37. In the case of barracks with double verandahs, the inner verandah space will usually be reckoned as part of the authorised area for the institute. The scale of institute for the hills is the same as that allowed for the plains, but, if the site is limited, may be reduced to not less than three-fourths of the scale. If the hut type is used, the hospital pattern of hut with a broad verandah in front and rear is most suitable (see T. P. 2 hutted camps), but the verandahs should, as a rule, be enclosed. Enclosed verandah space will be included in the floor area allowed. The hut type need not, however, be rigidly adhered to, see paragraph 10. For reading or games rooms, etc., open verandah space is not required.

Corporal's Room. 38. The corporal's room should be situated with an

Theatre. 39. The theatre should be situated in a position in the garrison exceeds 3,000 men two combined theatres may be provided, if necessary.

Separate theatres for units will be provided on the scale laid down in item 31 (i) when new lines are provided in an existing cantonment, (ii) when new institute accommodation is required in existing lines, and (iii) when existing

3. The necessary wooden upper structure, including two cross beams for drop scenes.

as fencing, band practice

boarded. If the site is limited but if the site is limited to three-fourths of the scale. If the hut type is used, the roof over the stage portion of the theatre should be raised to 15 feet.

Canteen. 40. In the hills an open verandah for the privates' room of the liquor bar is

Schools. 41. The schools should be situated on the same side as the serjeants' mess, or 20 children; a

The water rooms should be equipped with (i) water taps, or a tank in case where a pipe water supply has not been installed, and (ii) basins (as fixtures) on the following scales:—

Class room for men.

With 16 to 32 seats	1 basin
With 33 to 64 seats	2 basins.
With 65 seats and over	3 basins.

Class room for children.

With 20 to 40 seats	1 basin.
With 41 seats and over	2 basins.

Ration sheds. 42. Ration sheds for British troops require the previous approval of the C-in-C.

Stables. 43. Stables are to be light structures with iron or masonry pillars, the iron being sheathed in wood to a height of 5 ft. 6 inches above the ground. The height of the eaves must not be less than 7 ft. 6 inches. The area allowed per horse is 14 ft. by 8 ft., with a central passage 5 ft. wide between the rows of horses; two iron picketting pegs with rings in the heads, firmly fixed, and a saddle rack and harness peg, will be provided for each horse. Water troughs and

mangers in stables are unnecessary. The outstanding of stables of corps will not be constructed by the State.

44. The forge is to be centrally situated as regards the stables; the forge room Forge should be paved with hard bricks or stone slabs; the shoeing shed, with blocks of wood, placed grain on end and saturated with coal tar. Bonnets and flues for carrying off the smoke to be given. Anvil blocks are supplied as fixtures by the M. W. S.

45. The bench should be fixed at the north and the forge at the south end of Armourers shop

one of the maneges will be riding
manege each, a rec- schools.
by reason of group-
the maneges will be

circular.

High range,

t of

such

W.

gets

large

gets,

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Dot

Henry Wells.

l be

near Cricket
grounds.

52. A general barrack department store is usually provided in a central position for each station, and separate furniture stores are not therefore necessary. Furniture store.

When detached stores are given,

by regiment 1,275 sq. ft.; for a
500 sq. ft. Detach. store

53. Separate accommodation for the storage of kerosine oil is authorized at Oil store.
stations where the barracks are constructed of wood, and where there are no S. and
T. or other suitable buildings in which it can be stored.

54. The accommodation for which accommodation is authorized is Sanitaria.

Railway rest barracks. 55. When rest barracks are built, it is usual to provide for 6 officers, 8 N. C. Os, 176 single rank and file and 20 families. Separate dining-room space is not required as the men can mess in the verandahs. A lavatory giving sufficient room for 50 basins should be provided. Quarters for a warrant officer, a transport m (dry-store ary. A troop enclosed by y a substation.

Veterinary hospital. 56. One of the loose boxes in the station veterinary hospital should be arranged for horses suffering from colic. Planks at a slope of 1 in 4 should be provided on all sides to a height of 3', the corners being rounded. When required one of the large boxes can be coloured black for the treatment of anaesthetics.

class station veterinary hospitals.

British Hospitals.

Scale of hospital accommodation for British troops. 57. Station hospitals are provided for all the British troops at a station, sections of the station hospital being constructed, if considered necessary, for distant units.

Hospital accommodation will be provided on the following scale, on the authorised strength of British corps:—

At 5 per cent.—Ghazal, Khanpur, Ghora Dikka, Solon and Meerut.

At 6 per cent.—Barian, Khyra Gali, Dagahai, Jutogh, Ranikhet, Chaubuttia, and Lucknow.

At 7 per cent.—Rawalpindi, Campbellpore, Kuldana, Kalabagh, Bata Gali, Sialkot, Multan, Jullundur, Hyderabad (Sind), Mhow, Indore, Kamptee, Sitabuldi, Neemuch, Nowgong, Poona, Kirkee, Ahmednagar, Belgaum, Chakrata, Dum Dum, Barrackpore, Dinapore, Darjeeling, Fyzabad, Maymyo, Shwebo, Bhawo and Thayetmyo.

At 8 per cent.—Falta, Fort Chungri.

special scale.—

Attock, Murree, Upper and Lower Topa, Dalhousie, Kasauli, Subatbu, Moum Abu, Pachmarhi, Khandala, Land.

At 1 less and 2 augor, 6 and 3

except in the case of (i) sick authorised for them and (ii) sick p scale includes provision for:—

(i) Commissioned and warrant officers, (ii) men on the unattached list, (iii) sick prisoners from garrison and regimental provost prisons, (iv) lunatics, (v) special cases, (vi) ophthalmic cases, (vii) cases of contagious and infectious diseases.

At stations where there are military prisons, special provision for sick prisoners on the authorised scale will be made either in the prison itself or in the

Accommodation for sick in the plains.

tion to day-rooms.

Accommodation for sick in the hills. 59. The minimum area per head authorized is 102 sq. ft. and the hill hut type of construction is considered suitable; this gives 1,020 cu ft. of air space per man. A verandah to be given at the back as well as the front. The rules for hospitals in the plains are generally applicable to those in the hills and hotted camps.

separate ward. As a rule attendants' rooms should be placed between the main wards and the small ones for special cases, and an attendant's room should invariably be given next to the lunatics' ward. One small ward will be fitted with gated doors and windows as a ward for soldiers under detention. At stations for which lady nurses are authorized, a small ward, with bathroom attached, should be provided for their convenience whilst on duty. Hospital attendants should be provided with quarters near the hospital on the following scale.—

Hospital under	100 beds—	and
" 100 to 125	"	for 10 attendants.
" 125 to 150	"	12 "
" 151 to 250	"	14 "
" 251 and upwards	"	16 "

A dormitory and detached dining hall (with kitchen) of authorised sizes (see paragraphs 9 and 10) should be given, the former being divided into two rooms so as to give separate accommodation for men on night duty.

61. An attendant's duty room should be provided in each hospital block on the following scale:—

For block containing up to 20 beds

For block containing over 20 beds

62. The authorised accommodation

For	100 to 250	and	as follows:—	16' x 20'	Family hospital,
"	"	"	2	1	"
"	"	"	3	1	"
"	"	"	4	2	"
"	"	"	4	2	"
"	"	"	6	3	"

and 50 per cent. extra on the above scale.

In small stations, where there are very few women and children, it will not be necessary to provide a separate family hospital; if necessary, a ward in the men's unit may be set aside for this purpose.

63. The provision of hospitals for men are generally applicable

one matron only should be provided in every family

the ward; extra spaces with no pipe

and the wall spaces where fuel is

one or two compartments at the end of one of the wards. Fanlights are to be given over the doors of wards.

65. Special accommodation for officers has been sanctioned as laid down in Army Tables, Medical. No scale has been fixed, but two officers a ward about 16' x 24', and for three to four officers a ward about 28' x 24'.

66. Stations are built as part of and 2nd. XXI.

67. Special hospitals for contagious diseases. Hospital for contagious diseases.

Wire gauze
doors and
windows

Payment of
followers' or
pilgrims

Aden Bde., Mhow, Quetta and Poona Divns.—Aden, Karachi, Mhow, Naemuch,
Poona, Quetta.
Secunderabad Division—Bangalore, Howwar, Secunderabad.
Barma Division—Bhamo, Mandalay, Meiktila, Rangoon, Shwabo.

Indian Troops.

Establish-
ments.
Authorised
accommoda-
tion for
combatants.

70. The establishments of all units are given in the Army Tables.

71. The authorised accommodation per man in living rooms is:—

IN THE PLAINS		IN THE HILLS.	
Floor area.	Cubic space.	Floor area	Cubic space.

(i) Indian cavalry.

Risaldar Major, Risal-					
dars and Resaidars	403	5,508	403	3,672	
Jemadars	300	4,050	300	2,700	
Married sowars and					
married N. C. Os.	150	2,025	100	1,200	
Single N. C. Os. and					
single sowars	60	810	50	600	

(ii) Other units.

Indian officers	300	4,050	300	2,700	
Married N. C. Os. and					
married soldiers	144	1,944	100	1,200	
Single N. C. Os.	111	1,499	80	960	
Single soldiers	60	810	50	600	

Authorised
accommoda-
tion for
followers,
interme-
diate scale

72. The authorised public followers are entitled to accommodation as allowed for married followers

73. At stations of intermediate altitude, *e.g.* Quetta, Abbotabad, etc., accommodation should be provided on a scale intermediate between the scale for the plains and for the hills.

Buildings
for sappers
and miners.

74. The construction and maintenance of all buildings required by sappers and miners for their professional duties, such as stores, instructional schools, workshops, etc., devolves upon the M. W. S. or P. W. D., but all additional buildings leading to future increased cost of maintenance require the sanction of the G. of I.

Punkah
coolies' or
shelters

75. Inexpensive shelters should be made for punkah coolies, where they have to work in exposed positions.

Religious
teachers
and school-
masters' quarters

75-A. Religious teachers and schoolmasters should be provided with quarters on the same scale as married combatants.

Latrines.

75-B. For regulations for construction and repair of latrines, see A. R. I., Vol. II, para. 433.

Miscellaneous.

Encamping
grounds.

76. Encamping grounds are provided along frequented routes, the cost of land being debitable to the military estimates and other charges to M. W. funds; they should be maintained by the M. W. S. or P. W. D., as may be most convenient in each case. A covered-in well, with a masonry watering trough for animals, must be provided, and *baradari-khanas* will also be necessary when there is no town or large bazar in the vicinity. A portion of the ground 30' x 30' should be reserved as a cemetery but not enclosed until required.

Danger
buildings.

Mobilisation
equipment.

Trees.

not be so placed as to intercept the prevailing wind. Lines of trees should not be less than 50 yards from the barracks and a second row may be planted at not less than 30 feet from the first. The cost of planting and maintaining trees is to be met from the permanent funds but the work should be carried out in com-

Appendix F, para. 80.—Expunge the word "only" which occurs in the first line of the first clause, and add at the end of the same clause "vide also A. R., I., Volume II."

Oct. Appx.
I. A. O.—1919.
Case No. 11414,
(M. W. 5.)

authorised as a charge against the Military Works grant.

to the crematorium
Jhansi
Jubbulpore
Mhow
Nasirpur
Flagstaffs

1 per arsenal

fixtures Armchairs,
in troops

by the Farms.

supplies which will be maintained by the M. W. S or P. W. D.:

Dairies and offices
Store-godowns
European subordinates' quarters.
Water supply, including pukka wells.
Metalled roads.

If buildings other than those specified above are to be constructed by the M. W. S or P. W. D., funds will be transferred from army estimates for the purpose.

Item No.	Buildings.	Length.	Breadth.	Height.	Floor area, sq. rods, etc.	Remarks.	Type plan and section.
		Ft.	Ft.	Ft.	Sq. Ft.		
1	OFFICERS' QUARTERS.						
	LIEUTENANT-COLONEL'S QUARTERS						
	(i) In the plains.						
	House, consisting of—						
	2 sitting-rooms, each	24	16	16	5,453	A porch 15' x 15' (225 sq. ft.) in front and 10' verandah in the clear all round, containing 2 dressing-rooms each 15' x 8', a pantry 12' x 8', and 6 bath-rooms 7' x 8' or 6' x 8'. The authorised area of the rooms under the main roof is 1,840 sq. ft.	
	Hall	8	16	...			
	2 bed-rooms, each	18	16	16			
	2 ditto	18	15½	16			
	(a) Cook-house, etc.						
	Block containing—						
	Kitchen	13	8	9	855	A verandah 7½' wide along the front with a fuel store 6' x 6' in it connecting by a covered passage 24 x 6' with the pantry (150 sq. ft.)	
	Store-room	12	8	9			
	Lamp-room	6	8	9			
	Store-room	6	8	9			

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and areas.
1	LIEUTENANT-COLONEL'S QUARTER— <i>contd.</i>	Ft.	Ft.	Ft.	Sq. Ft.		
(f)	Servants' quarters—12, each	12	10	9	1,892		
(g)	Coach-house and stables—						
	Coach-house	14	10	9	}	To hold 2 vehicles. One for each authorized charger and two spare. See para. 2.	
	Stalls, each	8	12	9			
(i)	<i>In the hills.</i>						
	Double-storied house—						
	2 sitting-rooms, each	17	16	13	}	The area of the rooms under the main roof is 1,520 sq. ft.	
	Hall and staircase	13	8	13			
	Bed-room	17	14	13			
	Bath and store-rooms, each	9	4½	13	D. S.	The single-storied part includes a porch, 10' × 10', a 6' verandah in front, 2 bay windows, and a covered passage 36' × 6' to the cook-house. On the upper floor there is a sweeper's passage and staircase 87' × 3'.	
	Pantry	9	5½	13			
	2 bed-rooms, each	18	16	11	part		
	1 ditto	11	15	11			
	Dressing-room	10½	7½	11	1,795		
	Ditto	11½	9½	11	88		
	2 bath-rooms, each	6½	7½	11	part		
	1 ditto	5½	9½	11			
	1 ditto	5½	6	11	655		
	1 ditto	4	7	11			
(a)	Cook-house, etc.—						
	Block containing—						
	Kitchen	12	10	8	}	367	
	Fuel store	6	10	8			
	Lamp room	6	6	8			
(f)	Servants' quarters—						
	2 Blocks, each of 6 quarters, each	10	8	8	...		
(g)	Stalls 2, each	6	10	9	279	With a 4' passage in front. See para. 2.	
2	MAJOR'S QUARTER.						
(i)	<i>Married man, in the plains.</i>						
	2 sitting-rooms, each	18	20	16	}	A porch 15' × 15' (225 sq. ft.) in front and a verandah 10' in the clear all round, containing 1 dressing-room 18' × 8½', and 1 dressing-room 13' × 8½', a pantry 10' × 8½', 2 bath-rooms 6½' × 8½', one 8' × 8½' and one 6' × 8½'. The authorized area of rooms under the main roof is 1,512 sq. ft. A verandah 6' wide in front, with a fuel store 4½' × 4½' in it, connecting by a covered passage 15' × 6' with the pantry (97 sq. ft.)	
	Hall	8	20	16			
	Bed-room	16	18	16			
	Ditto	15	18	16	}		
	Ditto	13	18	16			
(a)	Cook-house, etc.—						
	Kitchen	13	8	9	}	586	
	Lamp-room	6	8	9			
	Store	8	8	9			
(f)	Servants' quarters—						
	8, each	12	1	9	1,268		
(g)	Coach-house and stable—						
	Coach-house	14	10	9	}	To hold 2 vehicles. One for each authorized charger and one spare. See para. 2.	
	Stalls, each	8	12	9			
(i)	<i>Single man, in the plains.</i>						
	Sitting-room	18	16	16	}	Verandah 10' on 2 sides and 8' on 2 sides with 1 store and 1 bath-room, each 8½' × 8', and 1 store and 1 bath-room, each 6½' × 7'. The authorized area of rooms under the main roof is 1,120 sq. ft.	
	Ditto	24	12	16			
	Bed-room	20	18	16			
	Dressing-room	12	20	16	3,524		
(a)	Cook-house—						
	Kitchen	8	10	9	143		
(b)	Lrine for officers (1 seat)	4	3	...	40	One between 2 officers (single).	

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area approximate	Remarks	Type plan and sections.
2	MAJOR'S QUARTER— <i>contd.</i>						
	(u) <i>Single man, in the plains—contd.</i>						
	(f) Servants' quarters— 6, each	12	10	9	956		
	(g) Coach-house and stables	as	in	(i)			
	(ii) <i>Married man, in the hills.</i>						
	Double-storied house—						
	Drawing-room	16	14	12	D S. part 1,141, S S. part 470.	6' verandah on 2 sides with a porch at the corner. Hall 12' x 12' and staircase in front partly in the verandah. The single-storied part also includes a covered passage 12' x 4' leading to the kitchen from the pantry. The authorized area of rooms under the main roof is 1,080 sq ft	
	Dining-room	14	14	12			
	Bed-room	12	10	12			
	Bath-room	10	6	12			
	Pantry	7½	6	12			
	Store-room	6	6	12			
	Bed-room	16	14	10			
	Ditto	14	14	10			
	Dressing-room	12	10	10			
	Ditto	7½	6	10			
	Bath-room	6	10	10			
	Ditto	6	6	10			
	(a) Cook-house—						
	Kitchen	10	8	9	310	With a verandah 4' wide in front.	
	Fuel store	5	8	9			
	(f) Servants' quarters— 8, each	10	8	8			
	(g) Stables 2, stalls each	6	10	9	279	With a 4' passage in front.	
	(iv) <i>Single man, in the hills</i>						
	Detached or semi-detached—						
	Sitting-room	16	16	12	1,536	The authorized area of rooms under the main roof is 620 sq. ft. 7½' verandah on 3 sides containing 2 bath-rooms 6' x 8' and a store-room 6' x 9', a porch 6' x 3' outside the back room.	
	Bed-room	16	14	12			
	Dressing-room	14	10	12			
	(a) Cook-house	6	8	9	109		
	(b) Officers' latrine	as in	(ii)	(b)			
	(f) Servants' quarters— 6 each	10	8	8			
	(g) Stable, 1 stall	6	10	9	171	With a 4' passage in front.	
3	CAPTAIN'S QUARTER						
	(i) <i>Married man, in the plains.</i>						
	Block containing—						
	2 sitting-rooms, each	20	16	16	3,899	An 8½' verandah all round containing 2 dressing-rooms, 7' x 12', a pantry, 9½' x 6', 2 bath-rooms, and a store-room, each 7' x 7', 2 bath-rooms each 5½' x 7'. The authorized area of rooms under the main roof is 1,440 sq ft.	
	Hall	6	16	16			
	Bed-room	18	16	16			
	2 ditto, each	16	16	16			
	(a) Cook-house, as for a major	see	2(a)	(a)	586		
	(f) Servants' quarters, as for a single major.	see	2	(ii)	679		
	(g) Coach-house and stables—						
	Coach-house	14	10	9		To hold two vehicles One for each authorised charger, and one spare, with a minimum of two stalls. See para 2	
	Stalls, each	8	12	9			
	(ii) <i>Single man, in the plains</i>						
	Semi-detached block containing 2 quarters—					The authorized area of rooms under the main roof is 648 sq ft. per captain. 10' verandah all round with 2 bath-rooms, 8' x 8½' and 2 store-rooms, 12' x 8½' in it.	
	2 sitting rooms, each	20	18	16			
	2 bed-rooms, each	18	16	16			

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. Ft.		
3	CAPTAIN'S QUARTER— <i>contd.</i>						
	(ii) <i>Single man, in the plains—contd.</i>						
	Or 1 room	21	16	16	...	10' verandah all round with 1 bath-room 8' x 8½' and 1 store-room 12' x 8½'—see para. 1.	
	(a) Cook-house, as for a single major.	see	2	(ii)	(a) 143.	One between 2 officers.	
	(b) Officers' latrine . . .	see	2	(ii)	(b)	8 quarters between 2 officers.	
	(f) Servant's quarters, same as for a married major	see	2	(i)	(f)		
	(g) Coach-houses and stables— 2 coach-houses, each 2 stalls, each . . .	14 8	10 12	9 9		One for each officer. One for each authorized charger and one spare for each officer. See para. 2.	
	(iii) <i>Married man, in the hills.</i>					The authorized floor area of main rooms is 763 sq. ft.	
	Drawing-room	15	14	12	1,950	A porch, 10' x 8' at one corner and a 6' verandah on 3 sides containing a dressing room 6' x 9', pantry, bath, and store-rooms, each 8' x 6' and 2 bath-rooms, at the back 8' x 6' and 6' x 6'.	
	Dining-room	14	12	12			
	Bed-room	15	14	12			
	Ditto	14	12	12			
	(a) Cook-house, etc.— Kitchen Fuel store	10 5	8 8	9 9	310	With a 4' verandah in front and a covered passage, 12' x 6' leading to the pantry.	
	(f) Servants' quarters, 4 each	10	8	8	456		
	(g) Stable, 1 stall . . .	6	10	9	160	With a 4' passage in front	
	(iv) <i>Single man, in the hills.</i>						
	Block of 2 quarters— 2 sitting rooms, each . . . 2 bed-rooms, each . . .	14 14	14 10	12 12	1,930	A 6½' verandah all round containing 2 store or office rooms 10' x 8', and 2 bath-rooms 8' x 6' each.	
	(a) Cook-house, as for a single major	see 2	(ii)	(a)	109	One between 2 officers	
	(b) Officers' latrine (1 seat)	see 2	(ii)	(b)	40	One seat for 2 single officers.	
	(f) Servants' quarters— 8 each	10	8	8	...	Four quarters for each officer.	
	(g) Stables, 2 stalls, each	6	10	9	279	With 4' passage in front.	
4	LIEUTENANT'S QUARTERS						
	(i) <i>Married man, in the plains.</i>						
	Same as for a married captain in the plains	see	3'	(i)			
	(ii) <i>Single man, in the plains.</i>						
	Block of 4 quarters— 4 sitting-rooms, each . . . 4 dressing-rooms, each . . . 4 bath-rooms, each . . . Central passage or 1 room	21 14 6 43½ 21	16 11 11 4 16	16 16 16 16 16	5,448	The authorized area of rooms under the main roof is 430 sq. ft.; an 8' verandah all round the block with 4 store-rooms, 8½' x 6½' in it.	
						10' verandah all round with 1 bath-room 8' x 8½' and 1 store-room 12' x 8½'—see para. 1.	

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, sq. ft. (approximate).	Remarks.	Type plan and series.
4	LIEUTENANT'S QUARTERS —contd	Ft	Ft	Ft	Sq. Ft		
	(ii) <i>Single man, in the plains—contd</i>						
	(a) Cook-house— As for a single major	see	2(11)	(a)	143	Between 4 officers	
	(b) Officers' latrine (2 seats)	4	6		60	Ditto	
	(f) Servants' quarters— 16, each	12	10	9	2,517	Four quarters for each officer.	
	(g) Coach-house and stables— 2 coach-houses, each	14	10	9	...	1 for 2 officers	
	Stalls, each	8	12	9	...	One for each authorized charger and one spare for each officer (See para. 2).	
	(iii) <i>Married man, in the hills</i>						
	Same as for a married captain in the hills.	see	3	(iii)			
	(iv) <i>Single man, in the hills.</i>						
	Block of 4 quarters— 4 sitting-rooms, each	14	14	12	5,220	The authorized area of rooms under the main roof is 332 sq. ft. An 8' verandah in front and at ends with 2 store-rooms each 6' x 7' and 2 bath-rooms each 6' x 7' in it, and 2 bath-rooms at the back of the middle quarters, each 6' x 7'.	
	4 bed-rooms, each	14	9	12			
	2 store-rooms (in centre)	11 1/2	4	12			
	(a) Cook-house— As for a major	see	2(11)	(a)	109	One between 4 officers.	
	(f) Servants' quarters— 12, each	10	8	9	405	3 quarters for each officer.	
	(g) Stables, 1 stalls, each	6	10	9		With 4' passage in front.	
5	UNIT SYSTEM						
	(a) <i>Double-storied block of 8 units</i>						
	Containing 4 units, each—						
	1 room	24	18		6,810	No field officer is entitled to more than 3 units or any other officer to more than 2 units unless there are spare units available. No officer is obliged to occupy more than 1 unit.	26-officers' quarters
	Ditto	14	12				
	Bath and store-rooms in verandah, each	12	10				
	And 4 units, each—						
	1 room	24	18		6,810	Verandah 10' wide all round, and a main staircase in the centre of the block 18' x 10'.	
	Dressing, bath-room, and verandah	18	10				
	(ii) <i>Single-storied block</i>						
	Containing 2 units each—						
	1 room	24	18		6,810	The single-storied design is preferable subject to local conditions.	
	Ditto	18	12				
	Bath and store-rooms in verandah, each	12	10				
	And 2 units, each—						
	1 room	24	18		240	For every 4 units.	
	Ditto	20	10				
	Bath-room in verandah	14	10				
	(a) Cook-house	12	12	12	566 799 170	For each unit.	
	(f) Servants' quarters— 5 each	10	8	8			
	in hills	12	10	8			
	(g) Stables, each	12	8	9	170	1 for each unit, and 1 extra for each charger an officer is bound to maintain.	
	(h) Coach-house— (To hold 2 conveyances)	24	12	12		One for each block of 4 units	

APP. V.—Accommodation—General.

Item No	Buildings	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
6	OFFICERS' MESS-HOUSES.	Ft.	Ft.	Ft.	Sq Ft		
	(i) <i>For a battery, R A in the plains</i>						
	Mess-room	30	20	21	3,530	10' verandah all round with pantry, bearer's room and store-room in it.	46-officers' quarters modified
	Ante-room	20	18	21			
	Mess-serjeant's quarters as in item 21 (i) . . . . .	...	...	...	...	6' verandah round 3 sides with a bathroom in it.	
	(2) Cook-house—	as	in	item	6-A		
	(b) Officers' latrine—						
	Privy of 2 seats	8	8	10	130		
	(f) Servants' quarters—	as	in	item	6-B		
	(i) Store-room	10	10	10			
	(g) Enclosure wall or fence	as	required				
	(ii) <i>For a battery, R A, in the hills, or in hilly camps—</i>						
	Mess-room	20	18	10	1,680	With 9' verandah in front	5-buttressed camp
	Ante-room	20	18	10			
	Dressing-room	12½	10	10			
	Bath-room	6	10	10			
	Bearer's room	10	10	10			
	Mess serjeant's quarters—						
	1 room*	20	12	10	1,010	9' verandah in front which contains the pantry. Bath-room 7½' x 6' at back.	Do.
	Pantry	7½	12	9			
	Mess-store	13½	12	10			
	Lamp-room	5½	12	10			
	(a) Cook-house	as	in	item	6-A		
	(b) Officer's latrine	as	in	(c)(b)	130		
	(f) Servants' quarters	as	in	item	6 B		
	(iii) <i>2 batteries, R A, or an Indian cavalry or Indian infantry regiment in the plains—</i>						
	Mess-room	30	20	21	4,930	Verandah 10' (in the clear) all round, with a dressing-room 10 x 10', bearer's room 10' x 10', store-room 23' x 10', and pantry 23' x 10', in it	46 officers' quarters
	Ante-room	24	18	21			
	Billiard-room	24	18	21		Not provided in mess-houses of Indian units	
	Mess serjeant's quarters, as in item 21 (i) . . . . .	...	...	...	...
	(a) Cook-house	as	in	item	6-A		
	(b) Officer's latrine	as	in	(f)	(b) 130		
	(f) Servants' quarters	as	in	item	6-B		
	(g) Enclosure wall or fence	as	required.				
	(iv) <i>2 batteries, R A, or a detached wing B. I., or an Indian cavalry or Indian infantry regiment in the hills or in hilly camps—</i>						
	Mess-room	24	20	10	2,780	9' verandah in front and for half the back of the building, with a lavatory 13½' x 7½', and a store-room 7½' x 5' in it.	5-buttressed camp
	Ante-room	20	18	10			
	Billiard-room	27	20	10			
	Bearer's room	10	10	10			

* This room may be divided into two, if required

Item No.	Buildings.	Length.	Breadth.	Height.	Floor area, approximate.	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. Ft.		
6	OFFICERS' MESS-HOUSES— <i>contd.</i>						
	(iv) 2 batteries R. A., of a detached wing B. I., or an Indian cavalry or Indian infantry regiment in the hills or in huttid camps— <i>contd.</i>						
	Mess sergeant's quarters—						
	1 room* . . .	20	12	10	1,090	Not provided in mess-houses of Indian units 9' verandah in front. Lamp and bath-rooms at back, each 7½' x 6'.	5-huttid camp.
	Pantry . . .	10½	12	10			
	Store-room . . .	8	12	10			
	(a) Cook-house . . .	as	in item		6-A		
	(b) Officer's latrine . . .	as	in (i) (b)		130		
	(f) Servants' quarters . . .	as	in item		6-B		
	(i) Store-rooms— 3 rooms, each . . .	15	10	8	...		
	(v) 3 batteries, R. A., in the plains—						
	Mess-room . . .	45	22	21	6,553	For R. A. brigade head-quarters add 10' to the length of the mess-room and for each extra battery add 15' to the length of the mess-room.	4½-officers' quarter modified.
	Ante-room . . .	30	22	21			
	Billiard-room . . .	30	22	21			
	Mess sergeant's quarter as in item 21 (i) . . .	as	in item		6-A		
	(a) Cook-house . . .	as	in item		(i) (b)		
	(b) Officer's latrine . . .	as	in item		6-B		
	(f) Servants' quarters . . .	as	in item		(i)		
	(i) Store-room . . .	as	in (i)				
	(j) Enclosure wall or fence . . .	as	required				
	(vi) 3 batteries, R. A., or a head-quarters wing B. I., in the hills or in huttid camps—						
	Mess-room . . .	27	20	10	3,240	9' verandah in front and for half the back of the building with lavatory 13½' x 7½', and store-room 8' x 7½' in it.	4-huttid camp.
	Ante-room . . .	27	20	10			
	Billiard-room . . .	27	20	10			
	Bearer's room . . .	10	10	10			
	Mess sergeant's quarters—						
	Sergeant's room* . . .	20	12	10	1,090	9' verandah in front. Lamp and bath-rooms at back, each 7½' x 6'.	Do.
	Abdar's room* . . .	20	12	10			
	(a) Cook-house—	as	in item		6-A		
	(b) Officers' latrines—	as	in item		(i) (b)		
	(f) Servants' quarters—	as	in item		6-B		
	(i) Store-rooms— Block of 3 rooms, each . . .	20	15	8	1,320		

* This room may be divided into two, if desired.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and series.
6-B	SERVANTS' QUARTERS FOR OFFICERS' MESSES OF UNITS OR GROUPS OF UNITS. (i) <i>For 10 officers or under in the plains.</i> 8 quarters, each (ii) <i>For 10 officers or under in the hills.</i> 6 quarters, each (iii) <i>For 11 to 15 officers in the plains.</i> 7 quarters, each (iv) <i>For 11 to 15 officers in the hills.</i> 7 quarters, each (v) <i>For 16 to 20 officers in the plains.</i> 9 quarters, each (vi) <i>For 16 to 20 officers in the hills.</i> 9 quarters, each. (vii) <i>For over 20 officers in the plains.</i> 10 quarters, each (viii) <i>For over 20 officers in the hills.</i> 10 quarters, each QUARTERS FOR DEPARTMENTAL OFFICERS, WARRANT AND N. C. OFFICERS AND CIVILIAN GAZETTED AND NON-GAZETTED OFFICERS AND SUBORDINATES—NEW SCALE.	Ft.	Ft.	Ft.	Sq. Ft.		
		12	10	9		Where a pipe water supply is laid on to the mess house and taps are provided in cook-house, pantry and mess lavatory, the number of quarters should be reduced by one.	
		10	8	8			
		12	10	9			
		10	8	8			
		12	10	9			
		10	8	8			
		12	10	9			
		10	8	8			
8	CLASS B QUARTERS (i) <i>In the plains, detached quarter.</i> Drawing-room . . . Dining-room . . . Hall . . . 2 bed-rooms, each . . . 1 bed-room . . . (ii) <i>In the plains, semi-detached quarter.</i> (a) Cook-house— Kitchen . . . (f) Servants' quarters— Block of 4 quarters, each . . . (g) Coach house and stable— Coach house . . . Stable . . . (iii) <i>In the hills, detached quarter.</i> Drawing room . . . Dining-room . . . Bed-room . . . Ditto . . . (iv) <i>In the hills, semi-detached quarter.</i> Rooms . . . Double-storied portion . . . Single . . .	18 18 6 15 12	16 16 16 16 16		3,750 3,190 210 643 330 1,670 780 210	For the individuals shown against class B in paragraph 5 to the number 9 or less, the full number of quarters should be given; for 10 to 12, one quarter less allowing for 2 men being single; for 13 to 20, 2 less Verandah 8 (in the clear) all round, with 1 dressing and 3 bath-rooms, a pantry and store-room in it. The authorized floor area of main rooms is 1,314 sq. ft. For height of quarters see paragraph 5. See remarks against (i) 6' verandah in front and 7½ verandah for sides of each side, with 2 bath-rooms, pantry and store-room in it. The authorized floor area of main rooms is 753 sq. ft. 6' verandah on 2 sides of the lower floor.	

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. Ft.		
8	CLASS B QUARTERS— contd. (1c) <i>In the hills, semi-detached quarter—contd.</i>						
	(a) Cook-house— Kitchen Fuel-store Verandah	10 5 19	8 8 4	8 8 8	420	With a 4' passage to the dining-room.	
	(f) Servants' quarters— Block of 4 quarters each	10	8	8	456		
	(g) Stable	8	12	9	170		
9	CLASS C QUARTERS, SEMI-DETACHED.						
	(i) <i>In the plains</i> 2 main rooms, each 2 bed-rooms, each 1 bed-room	20 14 14	14 14 11	. . . . .	2,780		
	(a) Cook-house— Kitchen	10	10	9½	170		
	(f) Servants' quarters— Block of 3 quarters, each	12	10	9	487		
	(g) Stable	12	8	9	170		
	(ii) <i>In the hills</i> Same as class B quarters Subsidiary buildings	Item 8 (iii) and (iv), as in item	8 (iii)	8 (iv)	..	For the individuals shown against class C in paragraph 6 to the number 7 or less, the full number of quarters to be built, for 8 to 10 one quarter less; for 11 to 15, two quarters less; for 16 to 20, three quarters less; this is to allow for 2 single men sharing one quarter. Verandah 8' (in the clear) on 3 sides, with 3 bath-rooms, a pantry and a store-room in it. The authorized floor area of the main rooms is 1,105 sq ft. For height of quarters see paragraph 5. See remarks above.	
10	CLASS D QUARTERS. (i) <i>In the plains, semi-detached</i> 2 main rooms, each 2 bed-rooms, each	16 16	15 12	. .	2,320		
	(ii) <i>In the plains, built in blocks.</i> as in (i)	as in	in	(i)	2,080	Except that 3 servants' quarters instead of 4 should be given. Same proportion of quarters to be built as in class C, except for warrant and N C officers and civilian non-gazetted officers and subordinates belonging to arsenals when class B proportion will be given. For S and T N C. Os exceeding 3 in number, married quarters will be provided for 50 per cent. only. In the event of an odd number of quarters being required the extra quarter will be on the married scale. For station hospitals with 100 beds and upwards, one out of every four assistant surgeons will be provided with quarters on the single scale. 9½' verandah on 3 sides, with 2 bath-rooms, a pantry and a store-room in it. The authorized floor area of main rooms is 864 sq ft. For height of quarters see paragraph 5.	

Item No.	Buildings.	Length.	Breadth.	Height.	Plot area, approximate	Remarks.	Type plan and service.
17	SUB-CONDUCTOR'S QUARTERS. (i) <i>In the plains.</i> Sitting-room 2 bed-rooms, each Subsidiary buildings (ii) <i>In the hills.</i> Same as for a conductor	Ft. 18 16 as	Ft. 16 10 in	Ft. 17 17 item	Sq. Ft. 1,840 16 (i)	The authorized floor area is 608 sq ft. 10' verandah at front and back with 2 bath-rooms in it. Except that when quarters for sub-conductors are built in blocks, 3 servants' quarters are given for every 2 sub-conductors with one extra for an odd number. See remarks against item 16 (i). The authorized floor area is 480 sq ft.	
18	SERGEANTS' QUARTERS Classes A, B and C— Same as for regimental N. C. Os— With the addition for each quarter of (f) Servant's quarter (g) Stable QUARTERS FOR REGIMENTAL, WARRANT AND N. C. OFFICERS AND MARRIED RANK AND FILE.	see	item	20	to 22	N. C. Os. of any military staff department are entitled to class A quarters, built in blocks of 2 or more quarters, if possible. N. C. Os. attached to native corps are entitled to sergeants' quarters of classes A, B or C, according to the position held by them in the corps.	
19	WARRANT OFFICERS' QUARTERS. (i) <i>In the plains.</i> (a) Cook-house (f) Servants' quarter (ii) <i>In the hills.</i> 4 rooms, each 2 bath-rooms (a) Cook-house	as as 12 12 6 as	in in 10 12 7 in	item item 9 10 9 item	10 (i) 21(i)(a) 169 21(i)(a)	Authorized for 1st and 2nd class master gunners, band masters, sergeant majors, R. A., sergeant majors (regimental), schoolmasters and schoolmistresses. Quarters for master gunners, band masters, and sergeant majors to be detached or semi-detached; those for schoolmasters and schoolmistresses to be attached to school, or built in one block of two semi-detached quarters. Warrant officers of the British Service employed on the staff, when supplied with quarters at the public expense, will be allowed the accommodation granted to corresponding ranks attached to corps. Authorized for— Master gunners, 3rd class; quartermaster sergeants (regimental); provost sergeants of military prisons. For height of quarters see paragraph 5.	1-battled camp.
20	CLASS A QUARTERS * (i) <i>In the plains.</i> 2 rooms, each 2 rooms, each 2 bath-rooms, each	16 13 10	13 10 8	... ... 10	2,236		21

* To be attached to blocks of other sergeants' quarters.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and service.
20	CLASS A QUARTERS*— <i>contd.</i> (i) <i>In the plains.</i> (a) Cook-house (b) Latrine (ii) <i>In the hills.</i> 2 rooms, each 2 rooms, each 2 bath-rooms, each (a) Cook-house (b) Latrine	Ft. as in item see paragraph 12 12 6 as in item see paragraph	Ft. (i) (i) 28 12 11 7 (ii) 28	Ft. 21 (a) graph 10 10 9 (a) graph	Sq. Ft. 1,242 103 1,577 136 29	See paragraph 16. Authorised for all married regimental N C Os and men except as provided for in item 20; N. C. Os, R. E., of defence light sections receive quarters according to rank, and have one servant's quarter 12' x 10' provided at State expense for each quarter. A servant's quarter of the same size should also be provided for N. C. Os, R. E., of detached companies of S. and M. For height of quarters see paragraph 5. See para. 24.	132-B. I. modified. 22 132 B. I. modified.
21	CLASS B QUARTERS.* (i) <i>In the plains.</i> One set of two quarters, containing :— 4 rooms, each 2 rooms, each 2 bath-rooms, each (a) Cook-house, one for each quarter, containing :— Kitchen Cooking place for stove (b) Latrine (ii) <i>In the hills.</i> One set of two quarters, containing :— 4 rooms, each 2 rooms, each 2 bath-rooms, each (a) Cook house, one for each quarter, containing :— Kitchen Cooking place for stove (b) Latrine	16 10 10 9 10 6½ see paragraph 12 12 6 10 6 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 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Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
31	INSTITUTE (EXCLUDING LIQUOR BAR AND THEATRE) FOR BRITISH TROOPS IN THE PLAINS AND HILLS—contd.	Ft.	Ft.	Ft.	Sq. Ft.		
	(a) For 751 to 900 men—contd						
	Recreation and refreshment portion:—				22,082		
	Temperance room	44½	30½	15		} In upper storey.	
	Hall	24½	32½	15			
	Games room	44½	30½	15		} Three billiard tables.	
	Billiard room	56	32	16			
	Supper	67½	32	16			
	Supper issue room	29	16½	16			
	Branch liquor bar	29	14	16			
	Grocery bar	33	14	16			
	Store-room	15½	15½	16			
	Office	15½	15½	16			
	Store	29	10	10		} In the verandah.	
	Lavatory	18	9½	10			
	Corporals' room	38	32	16		One billiard table.	
	Caterer's quarters—						
	Bed-room	14	13½	16		} In the verandah.	
	Sitting room	16	14	16			
	Bath-room	10	8	10			
	(a) Cookhouse containing—						
	Kitchen	23½	16	13	1,124	With an 8' verandah in front containing a fuel store, 7½' x 3½'.	10 Hosp-ital modified.
	Scullery	16	12	13			
	Meat store	8	8	8			
	(b) Latrine—						
	Privy of 2 seats	5½	10	9	105	Not to be given when there is a barrack latrine near.	132 B. I.
	(d) Urinary—						
	4 compartments	10	6½	7	85		133 B. I.
	(ii) For 651 to 750 men						
	Library portion—						
	Reading room	40	24	16			
	Hall	24	26	16			
	Writing room	21½	24	16		Includes book-room.	
	Recreation and refreshment portion—						
	Temperance room	40½	24½	15		} In upper storey.	
	Hall	24½	26½	15			
	Games room	40½	24½	15		} Two billiard tables.	
	Billiard room	40	32	16			
	Supper room	62	26	16			
	Supper issue room	29	12	16	18,076		
	Branch liquor bar	29	12	16			
	Grocery bar	28	14	16			
	Store-room	15½	12½	16			
	Office	15½	12½	16			
	Store	29	10	10	...	} In the verandah.	
	Lavatory	18	9½	10	...		
	Corporals' room	28	32	16		One billiard table.	
	Caterer's quarters—						
	Bed-room	17	10½	16		} In the verandah.	
	Sitting room	17	13	16			
	Bath-room	10	8	16			
	(a) Cookhouse	as in (i)			1,124		
	(b) Latrine	as in (i)			105		
	(d) Urinary	as in (i)			85		

Item No.	Buildings.	Length.	Breadth.	Height.	Floor area, approximate.	Remarks.	Type plan and series.
31	INSTITUTE (EXCLUDING LIQUOR BAR AND THEATRE) FOR BRITISH TROOPS IN THE PLAINS AND HILLS— <i>contd.</i>	Ft.	Ft.	Ft.	Sq. Ft.		
	(iii) For 551 to 650 men						
	Library portion—						
	Reading room . . .	36	24	16	17,339	Includes book-room.	
	Hall . . .	22	25	16			
	Writing room . . .	17½	24	16			
	Recreation and refreshment portion—						
	Temperance room . . .	36½	24½	15	17,339	} In upper storey. Two billiard tables.	
	Hall . . .	22½	23½	15			
	Games room . . .	36½	24½	15			
	Billiard room . . .	40	32	16			
	Supper room . . .	60	28	16			
	Supper issue room . . .	29	13	16			
	Branch liquor bar . . .	29	12	16			
	Grocery bar . . .	26	14	16			
	Store-room . . .	12½	14	16			
	Office . . .	12½	14	16			
	Store . . .	28	10	10	...	} In the verandah. One billiard table	
	Lavatory . . .	16	9½	10	...		
	Corporals' room . . .	28	32	16			
	Caterer's quarters . . .	as	in	(ii)			
	(a) Cookhouse . . .	as	in	(i)	1,124		
	(b) Latrine . . .	as	in	(i)	105		
	(d) Urinary . . .	as	in	(f)	85		
	(iv) For 451 to 550 men						
	Library portion—						
	Reading room . . .	30	24	16	15,656	Includes book-room.	
	Hall . . .	18	26	16			
	Writing room . . .	14½	24	16			
	Recreation and refreshment portion—						
	Temperance room . . .	32½	24½	15	15,656	} In upper storey. Two billiard tables.	
	Hall . . .	18½	26½	15			
	Games room . . .	30½	24½	15			
	Billiard room . . .	38	28	16			
	Supper . . .	53	26	16			
	Supper issue room . . .	27	13	16			
	Branch liquor bar . . .	27	12	16			
	Grocery bar . . .	26	13	16			
	Store-room . . .	12½	12½	16			
	Office . . .	12½	12½	16			
	Store . . .	27	10	10	} In the verandah. One billiard table.		
	Lavatory . . .	12	9½	10			
	Corporals' room . . .	25	28	16			
	Caterer's quarters . . .	as	in	(ii)			
	(a) Cookhouse containing—						
	Kitchen . . .	19	16	13	1,005	With an 8' verandah in front, containing a fuel store, 7½' x 3½'. See remarks against (i) (b).	10 Hospital, mod. Ed.
	Scullery . . .	16	12	13			
	Meat store . . .	8	8	8			
	(b) Latrine—						
	Privy of 1 seat . . .	4	3	...	40		
	(d) Urinary—						
	2 compartments . . .	6½	6	7	49		133 B. f.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
31	INSTITUTE (EXCLUDING LIQUOR BAR AND THEATRE) FOR BRITISH TROOPS IN THE PLAINS AND HILLS— <i>contd.</i>	Ft.	Ft.	Ft.	Sq. Ft.		
	(e) For 351 to 450 men						
	Library portion—						
	Reading room	25	24	16	14,285	Includes book-room.	
	Hall	26	14	16			
	Writing room	24	10½	16			
	Recreation and refreshment portion—						
	Temperance room	23½	24½	15	14,285	In upper storey, Two billiard tables.	
	Hall	14½	26½	15			
	Games room	25½	24½	15			
	Billiard room	33	28	16			
	Supper room	54	26	16			
	Supper issue room	26	13	16			
	Branch liquor bar	26	12	16			
	Grocery bar	26	12	16			
	Store-room	12½	12½	16			
	Office	12½	12½	16			
	Store	26	10	10	12,990	In the verandah.	
	Lavatory	9	9	10			
	Corporals' room	16	28	16			
	Caterer's quarters	as	in	(ii)			
	(a) Cookhouse	as	in	(iv)			
	(b) Latrine	as	in	(v)			
	(d) Urinary	as	in	(iv)			
	(vi) For 201 to 350 men						
	Library portion—						
	Reading room	26	12	16	12,990	In upper storey, Two billiard tables.	
	Hall	26	14	16			
	Writing room	26	11½	16			
	Book-room	13½	8	16			
	Recreation and refreshment portion—						
	Temperance room	26½	24½	15			
	Hall	14½	26½	15			
	Games room	22½	24½	15			
	Billiard room	38	28	16			
	Supper room	40	24	16			
	Supper issue room	24	12	16	1,005	In the verandah.	
	Branch liquor bar	24	11½	16			
	Grocery bar	24	12	16			
	Store-room	11½	12	16			
	Office	11½	12	16			
	Store	24	10	10			
	Lavatory	9	9	10			
	Corporals' room	14	23	16			
	Caterer's quarters—						
	Bed-room	13½	13½	16	40	See remarks against (i) (d).	
	Sitting room	23	10	16			
	Bath-room	10	8	16			
	(a) Cookhouse	as	in	(iv)			
	(b) Latrine	as	in	(iv)	48		
	(d) Urinary	as	in	(iv)			
	(vii) For and up to 200 men						
	Library portion—						
	Reading room	20	22	16	1,005	In the verandah.	
	Hall	26	12	16			
	Writing room	11½	11½	16			
	Book-room	11½	8	16			

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.		
31	INSTITUTE (EXCLUDING LIQUOR BAR AND THEATRE) FOR BRITISH TROOPS IN THE PLAINS AND HILLS—concid.	Ft.	Ft.	Ft.	Sq. Ft.				
	(vi) For and up to 200 men—contd.								
	Recreation and refreshment portion—								
	Temperance room	20½	21½	15	10,620	} In upper storey. One billiard table.			
	Hall	12½	28½	15					
	Games room	16½	24½	15					
	Billiard room	29	24	16					
	Supper room	33	21	16					
	Supper issue room	27	12	16					
	Branch liquor bar	20	11½	16					
	Grocery bar	10	24	16					
	Store-room	11½	12	16		} In the verandah.			
	Office	11½	12	16					
	Store	10	20	10	...				
	Lavatory	6	9½	10	...				
	Corporals' room	14	24	16					
	Caterer's quarters—								
	Bed-room	16	11½	16	677	} With an 8' verandah in front, containing a fuel store 7½' x 3½'. In the verandah.			
	Sitting room	16	12	16					
	Bath-room	10	8	16					
	(a) Cookhouse containing—								
	Kitchen	16	14½	13	677		} With an 8' verandah in front, containing a fuel store 7½' x 3½'. In the verandah.		
	Scullery	16	8	13					
	Meat store	8	8	8					
	(b) Latrine	as	10	(10)	40				10 Hqs. pital, modified. 132 B. I.
	(d) Urinary—								
	1 compartment	6½	2½	7	28				133 B. I., modified.
32	PRAYER ROOM.								
	(i) For a battalion of infantry or its equivalent in the plains								
	Main room	40	18	20	2,050	} increased 10' in length, and for each additional battery or company it will be increased 5' in length. For 2 battalions the main room will be 60' long. Punks and peg racks are authorized. For a wing the main room will only be 18' long. For a battery the main room will be increased ½, and for each additional battery ¼, the length allowed for a battalion.			
	2 side rooms	14½	8	12					
	Porch	10	10	12					
	(ii) For a battalion of infantry or its equivalent in the hills								
	Main room	30	14	12	1,580		} increased 10' in length, and for each additional battery or company it will be increased 5' in length. For 2 battalions the main room will be 60' long. Punks and peg racks are authorized. For a wing the main room will only be 18' long. For a battery the main room will be increased ½, and for each additional battery ¼, the length allowed for a battalion.		
	2 side rooms	14	10	12					
	Porch	10	10	9					
32A	THEATRE.								
	(v) For 4 batteries R. H. & R. F. A. with ammunition columns 195 seats	81	24	16		See paragraph 39.			
	(vi) For 4 companies R. G. A. (Inland) 140 seats	40	24	16		If there are less than 3 batteries or companies of artillery at a station, the supper room should be used as a theatre.			

10 Hospital, modified.
132 B. I.
133 B. I. modified.

47 R. I. modified.

Item No	Buildings.	Length.	Breadth	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
32A	THEATRE— <i>contd.</i>	Ft.	Ft	Ft	Sq. Ft.		
	(iii) For 4 companies R. G. A. (Coast). 110 seats	41	24	16			
	(iv) For R. F. A. brigade or group of 3 batteries R. H. & R. F. A. with a R. F. A. ammunition column. 145 seats	50	24	16			
	(v) For 3 companies R. G. A. (Inland). 105 seats	39	24	16			
	(vi) For 3 companies R. G. A. (Coast). 85 seats	34	24	16			
	(vii) For a regiment of British cavalry. 150 seats	62	24	16			
	(viii) For a battalion of British infantry. 250 seats	80	24	16			
	(ix) For headquarters and 6 companies of British infantry. 200 seats	65	24	16			
	(x) For headquarters wing of British infantry. 140 seats	49	24	16			
	(xi) For detached wing of British infantry. 110 seats	41	24	16			
33	VETERINARY HOSPITALS.						
	(i) Station veterinary hospital—class I (General Central.) Main building— Stalls, 6 per cent. of strength, each	14	8	15½		A 6½' verandah on 3 sides and a central passage 6' wide through the length of the building. The slinging bars are to be 8' from the ground and firmly fixed. The blocks and pulleys for slings will be provided as fixtures by the M. W. S. Jhamps with 2 poles each are allowed when considered absolutely necessary by the veterinary officer. Stocks are to be provided on the scale of one per first class veterinary hospital. See para. 66.	87 A, B, C.
	Loose boxes, 1 per cent. of strength— Ordinary cases, each	14	12	15½			
	Special for colic and eye cases, each	14	13½	15½			
	Outstandings, 7 per cent. of strength, each	14	8	...			
	2 sling boxes, each	14	12	15½			
	Office	14	16	15½			
	Pharmacy	14	16	15½			
	Orderlies' room	14	14	15½			
	Store	14	14	15½			
	Isolation block— 2 Isolation boxes, each	14	14	15½	911	A 6½' verandah on 2 sides, each containing a store room, 6½' x 5½'.	87 B, B, C. 87 B, B, C.
	Casting shed	23	26	10	1,218.		
	Ambulance shed	25	14	10			

Item No.	Buildings.	Length.	Breadth.	Height.	Floor area, approximate	Remarks.	Type plan and series
		Ft.	Ft.	Ft.	Sq. Ft.		
33	VETERINARY HOSPITALS—contd. (c) <i>Station veterinary hospital—class I. (General Central)—</i> contd.						
	Boiling house and store—					Two boilers for each building are to be supplied by the M. W. S.	87 A, B. C.
	Room for boiling purposes	8	8	8½	395		
	Grain store	12	8	8½			
	Wood store	12	8	8½			
	Watering trough	length as required.				See para. 56.	3 Misc.
	Irrigation stand and hard.						
	Mobilisation store	33½	8½	12	670	With 6½' verandah in front when considered necessary by P. V. O. in India.	
	Quarters for followers—						
	Byes 2 per squadron and 1 per battery.	12	10	10			
	1 bhusti						
	1 sweeper						
	Farrier sergeant's quarters with subsidiary buildings.	as in item 10.		10.			
	Shoeing smith's quarters with subsidiary buildings	according to rank.					
	Enclosure wall	as required.					
	(ii) <i>Station veterinary hospital, class I (for British cavalry)</i>	same as in (i)				Except that stalls are provided at 7 per cent, loose boxes at 2 per cent., and outstandings at 9 per cent of strength of cavalry. See remarks against (i).	
	(iii) <i>Station veterinary hospital, class II (for R. II. A. or R. F. A.)</i>						
	Main building—						
	Stalls 5 per cent of strength, each	14	8	15½		See para. 56. One loose box will be fitted with slinging bars. A 6½' verandah will be given on 3 sides and a central passage 6' wide through the length of building.	87 A, B. C.
	Loose boxes, 3 per cent of strength.						
	Special cases, colic, etc—	14	13½	15½			
	Ordinary	14	12	15½			
	Outstandings 9 per cent of strength	14	8				
	Office	14	16	15½			
	Pharmacy	14	16	15½			
	Store room	14	14	15½			
	Isolation box	14	14	15½	320		87 B, B. C.
	Boiling house and grain store	as in (i)			210		
	Watering trough	length as required					3 Misc.
	Enclosure wall	as required.					
	(iv) <i>Veterinary Hospital for British mountain battery in the hills</i>						
	1 compartment of 4 standings	34	13	8	2,014	One loose box will be fitted as a casting shed, with slinging bars. Doors to be provided in the outer walls of standings and loose boxes. See para. 56.	87 A, P. C.
	3 loose boxes, each	11½	13	8			
	Surgery	12	13	8			
	Office	12	13	8			
	Central passages	47½	6				

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.		Remarks.	Type plan and series.
32A	<i>THEATRES—contd.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Sq.</i>	<i>Ft.</i>		
	(iii) For 4 companies R. G. A. (Coast). 110 seats	41	24	16				
	(iv) For R. F. A. brigade or group of 3 batteries R. H. & R. F. A. with a R. F. A. ammunition column 145 seats	50	24	16				
	(v) For 3 companies R. G. A. (Inland). 105 seats	39	24	16				
	(vi) For 3 companies R. G. A. (Coast). 85 seats	34	24	16				
	(vii) For a regiment of British cavalry. 160 seats	52	24	16				
	(viii) For a battalion of British infantry. 250 seats	80	24	16				
	(ix) For Headquarters and 6 companies of British infantry. 200 seats	65	24	16				
	(x) For Headquarters wing of British infantry. 140 seats	49	24	16				
	(xi) For detached wing of British infantry 120 seats	41	24	16				
33	<i>VETERINARY HOSPITAL.</i>							
	(i) Station veterinary hospital—class I. (General Central.) Main building— Stalls, 6 per cent. of strength, each	14	8	15½			A 6½' verandah on 3 sides and a central passage 6' wide through the length of the building. The slinging bars are to be 8' from the ground and firmly fixed. The blocks and pulleys for slings will be provided as fixtures by the M. W. S. Jhamps with 2 poles each are allowed when considered absolutely necessary by the veterinary officer. Stocks are to be provided on the scale of one per first class veterinary hospital. See para. 60.	87 A, B. C.
	Loose boxes, 1 per cent. of strength— Ordinary cases, each	14	12	15½				
	Special for colic and eye cases, each	14	13½	15½				
	Outstandings, 7 per cent. of strength, each	14	8	...				
	2 sling boxes, each	14	13	15½				
	Office	14	16	15½				
	Pharmacy	14	16	15½				
	Orderlies' room	14	14	15½				
	Store	14	14	15½				
	Isolation block— 2 Isolation boxes, each	14	14	15½	941		A 6½' verandah on 2 sides, each containing a store room, 6½' x 8½'.	87 B, R. C.
	Casting shed	25	25	10	} 1,218			87 R.
	Ambulance shed	25	14	10				B. C.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and section.
35	BARRACKS FOR MARRIED RANK AND FILE. Two blocks each of 8 class B quarters . . . as in item 21 (c) 11,310 (a) Cook-houses— . . . as in item 11 (c) (a) (b) Latrines . . . see para. 28 (c) Urinaries— . . . 2 urinaries of one compartment, each . . . 6½ 2½ 7 28	Ft.	Ft.	Ft.	Sq. Ft.	The strength to be accommodated is 3 per cent. of 542, that is, quarters for 16 men are required. Suitably placed for the two blocks of quarters.	132 B. I. 133 B. I.
36	QUARTERS FOR WARRANT OFFICERS. 4 class D qrs, each . . . as in item 10 (c) 2,120 (a) 4 cook-houses, each . . . as in item 21 (c) (a) (c) Servants' qrs.— . . . 2 blocks of 2, quarters, each . . . 10 9 9 300					One each for the regimental sergeant-major, band-master, school master and school mistress. In detached, or semi-detached quarters, but see item 62. Same as above. Same as above. Servants' latrine is not authorised.	
37	QUARTERS FOR STAFF SERJEANTS AND SERJEANTS. One block containing— 1 class A and 10 class B quarters . . . as in items 20 (c) and 21 (c) 15,724 One block of 12 class B quarters . . . as in item 21 (c) 16,352					At the end of the single men's barracks, there are 27 serjeants' quarters; one serjeant will be in the officers' mess; and there are quarters for provost serjeant, canteen serjeant, and caterer of the institute; or 31 in all; leaving 23 to be accommodated in the quarters for married serjeants. The scale for married quarters is 40% of 54, i.e., 22, so this number is one in excess, but it is equally cheap to provide a quarter in the married block as at the end of a barrack.	
	(a) Cook-houses— . . . as in item 21 (c) (a) (b) Latrines— . . . see para. 28					Suitably placed for the two blocks.	132 B. I. modified.
38	ARMOURERS' SHOP. Work-room . . . 30 24 16½ Forge-room . . . 24 9½ 16½ Water and wood store . . . 10 10 10 Drying-room . . . 10 10 10					See para. 45.	41A to C. B. I.
39	BLACKSMITHS' FORGE AND SHORING SHEDS Forge-room . . . 50 20 16 Store-room . . . 20 8½ 16 2 shoeing sheds (verandahs) each . . . 60½ 15 12½					See para. 44. A third forge may be provided where necessary.	9 B. C.
40	BLACKSMITHS' FORGE AND WORKSHOP VOLUNTARY. Forge . . . 23 { 22 or 24 }						900

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. Ft.		
41	RECREATION GROUND . . .	...	...	...	...	See para. 51.	
42	DRY EARTH STORE . . .	...	...	...	...	See para. 31.	
43	FENCING SCHOOL— 1 room . . .	50	24	...	...	The gymnasium or theatre can usually be used for this purpose, in which case this room will not be required. A boarded floor must be given.	
44	FIRE ENGINE SHED . . .	...	...	...	...	See item 28.	48 B I.
45	FIVES COURT . . .	...	...	...	...
46	GYMNASIUM . . .	...	...	...	...
47	INSTITUTE— Liquor bar portion— Privates' room . . . Bar or issue room . . . Beer store . . . Corporals' room . . . Serjeants' quarter . . . Theatre . . . (b) Latrine— Privy of 1 seat . . . (d) Urinary— 1 compartment . . .	28 10 16 14 as in item 45 45 4 6½	24 24 24 24 24 24 3 2½	16 16 16 16 22 16 ... 7	5,573 3,385 40 28	The space authorised, exclusive of the space taken up in the verandahs, is 2,032 sq. ft. Not to be given when there is a barrack latrine near.	132 B I. 133 B I. modified.
47A	LAUNDRY STORE. For a regiment. 2 rooms each . . .	20	13	13½	683	.....	74 B I.
48	MAGAZINE— 1 room for S. A. ammunition . . .	16	10	16	340	This will usually be provided in the central station magazine. See para. 47. If so, a small expense store to hold 60 boxes of ammunition will be provided in the lines.	
49	Magazine for explosives— 1 room . . .	10	10	10	247	With a 6' verandah in front. Only to be provided in stations where the explosives cannot be stored in an arsenal. See para. 48.	
50	NIGHT PICKET GUARD ROOM 1 room (without verandah). . .	..	...	...	...	Should only be constructed if considered necessary by the local authorities. Whenever possible the night guard picket should be accommodated in the quarter guard building. When constructed accommodation will be provided on the scale of 90 sq. ft. per man.	
51	ORDERLY AND COURT-MARTIAL ROOM. Orderly-room . . . Bath-room . . . Court-martial room . . .	24 9½ 36	20 9½ 20	16 9½ 16	4,170	Officers' rooms will only be given under special sanction.	45 B I. modified.
52	PARADE GROUND.					No size laid down.	
53	PAY OFFICE. 1 room . . . (d) Urinary— 1 compartment . . .	24 6½	15 2½	16 7	800 28	Can be given under the same roof as the orderly room. For the officers; only to be given if no latrine or urinary is near.	133 B I.

Item No.	Buildings.	Length.	Breadth.	Height.	Floor area, approximate	Remarks.	Type plan and section.
		Ft.	Ft.	Ft.	Sq. Ft.		
53-A	Flange bath . . . . .	...	...	...	...	See paragraph 43-A	
	Bath	16	14	10½	1,660		
	2 passages, containing 2 shower baths, each	8	6	10			
	Dressing room	10	20	10½			
54	PRAYER ROOM . . . . .	...	...	...	...	See item 32.	
55	QUARTER GUARD AND DETENTION ROOMS.						
	Guard-room for 18 men	67½	24	16	7,500		
	Guard detention room for 12 men	45	24	16		.....	64 A to 64 D modified.
	Provost sergeant's quarter	as in item	22				
	Six barrack detention rooms, each	13	10	16	2,930	.....
	(b) Latrines—						
	4 seats, 2 for guard, and 2 for soldiers under sentence—						
	2 compartments, each	12	5½	9	230	.....	64 B, B I, modified.
	Covered passage for sentry	7	5	9			
	(c) Lavatory—						
	1 room for 10 basins	15	16	9	600		64 B, B I, modified.
	4 private bath-rooms	6½	5	9			
	(d) Urinary—						
	2 compartments	6½	5	7	48		133 B I.
56	QUARTERMASTER'S STORES.						
	3 store rooms, each	41½	24	11	6,380		17 B C.
	Tailor's workshop	24	15	11			
	Quartermaster's office	24	10	11			
	Dry store room	13	8½	9			
	(d) Urinary—						
	1 compartment	6½	2½	7	28	Only to be given if no latrine or urinary is near.	133 B I.
57	REGIMENTAL WORKSHOPS, VOLUNTARY.						
	Carpenter's shop	50	22	16	7,780		
	" store room	41	12	9			
	Painter's shop	22	22	16			
	Tinsmith's shop	22	14	16			
	Shoemaker's shop	22	22	16			
	Bookbinder's shop	14	10½	16			69 B I.
	Watch-maker's shop	14	10½	16			
	Printer's shop	25	22	16			
	Two water-rooms, each	8	8	9			
	(d) Urinary—						
	1 compartment	6½	2½	7	28	Only to be given if no latrine or urinary is near.	133 B I.
58	RIDING SCHOOLS.						
	2 manéges, each . . . . .	...	...	...	...	See para 43 A.	37 R. A and 37 A, R. A.
59	RIFLE RANGE . . . . .	...	...	...	...	See revised type plan and para. 49.	49 A to C, H. J.
60	SADDLE AND STOREROOMS						
	4 buildings each—						
	2 saddle rooms, each	30	24	16	5,040	Each building is for a squadron, if convenient they may be divided up for half squadrons. They should be situated midway between the barracks and the stables.	19 B C.
	2 store " "	24	10	16			

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and series.
61	SADDLER'S AND SADDLETREE-MAKER'S SHOP.	Ft.	Ft.	Ft.	Sq. Ft.		
	Saddler's shop—						
	1 room	30	20	16	3,920		20 B. C.
	2 rooms	30	10	11½			
	Water-room	10	10	11½			
	Saddletree-maker's shop—						
	1 room	30	20	16			
	2 rooms	30	10	11½			
62	SCHOOL.						
	Classroom for 64 men	48	24	16	4,680	See para. 41.	21 B. C.
	" " " 36 children	22	24	16			
	2 water-rooms, each	6	10	9½			
	If the quarters for the schoolmaster and schoolmistress are combined with the school.	as	in	item	86	Cook-houses and warrant officers' quarters will also be necessary for the schoolmaster and mistress.	
	(b) Latrine—						
	Privy for boys	10½	8½	9	830		71 E, B. I.
	" " girls	10½	8½	9			
	Urinary for boys	4½	3½	...			
	Dry earth shed	4½	3½	...			
	(d) Urinary for men—						
	2 compartments	6½	5	7	48		133 B. I.
63	SERGEANTS' MESS.						
	Mess-room	50	24	16	5,656	A 10' verandah in the clear all round, containing the beer store, caterer's room, pantry, and a lavatory 9½' x 12' near the ante-room.	67 B. I.
	Ante-room	30	24	16			
	Billiard room	30	24	16			
	Beer store	24	9½	9½			
	Caterer's room	21	9½	9½	820	With a 7' verandah in front, containing a fuel store 6½' x 4½'.	67 B. I.
	Pantry	8½	9½	9½			
	(a) Cook-house—						
	Kitchen	18	18	13			
	Scullery	13½	6	13	100		133 B. I.
	Cook's room	10	6	8			
	Meat store	6	6	8			
	(b) Latrine—						
	Privy of 2 seats	10	5½	9	28		133 B. I.
	(d) Urinary—						
	Compartment	6½	2½	7			
64	STABLES—						
	8 stables each for 70 horses, containing—						
	2 compartments, each for 8 horses, each	64	14	...	11,154	Each block for a half squadron. The strength of horses is 561 ∴ $\frac{561}{8}$ = 70 horses to each half squadron.	18 B. C.
	6 compartments, each for 9 horses, each	72	14	...			
	Central passages	236	5	...			
	(d) Urinaries—						
	8 of 2 compartments, each	6½	5	7	48	One to each block of stables	133 B. I.
65	KAHARS' HUT.						
	Hut for 4 kahars	20	12	10	360	To be built near the quarter guard.	
66	VETERINARY HOSPITAL	...	...	...	...	See item 33.	
67	WELLS	as required	...	...	...	See para. 50.	136 B. C.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. ft.		
63	BARRACKS FOR SINGLE RANK AND FILE— <i>contd.</i>						
	(a) Combined dining hall and kitchen.				7,740	With 10' verandahs on 3 sides. With 7' verandahs in front containing 2 fuel stores 6½' × 2½' each.	119 B. I. modified.
	2 dining halls, each for 82 men, each	48	24	16			
	1 kitchen	30	18	13			
	2 sculleries each	18½	8	13			
	2 cooks' rooms, each	8	8	8			
	2 meat stores, each	10	8	8			
	(b) Latrines	as in	(c)				
	(c) Lavatories	as in	(d)				
	(d) Urinaries	as in	(e)				
	(iii) Howitzer brigade ammunition column—						
	1 barrack containing—				10,870	The strength is 40 rank and file, of whom 2 are married.	4 R. A. modified.
	2 sergeants' quarters	as in item	22				
	2 dormitories, each for 22 men, each	82½	24	16			
	store-room	10	9	9½			
	(a) Combined dining hall and kitchen.				2,860	With 10' verandah on 3 sides. With 7' verandah in front containing 1 fuel store 6½' × 2½'.	119 B. I. modified.
	1 dining hall for 44 men	25½	24	16			
	1 kitchen	15	18	13			
	1 scullery	18½	8	13			
	1 cook's room	8	8	8			
	1 meat store	10	8	8			
	(io) Heavy battery						
	1 barrack containing—				11,240	The strength is 96 rank and file, of whom 4 are married. Accommodation is therefore required for 92 single men and 3 single sergeants.	4 R. A. modified.
	2 sergeants' quarters	as in item	22				
	1 dormitory for 24 men	90	24	16			
	1 dormitory for 22 men	82½	24	16			
	store-room	10	9	9½			
	1 barrack containing—				10,450		
	1 sergeant's quarters	as in item	22				
	dormitories for 46 men.	as above					
	(a) Combined dining hall and kitchen—						
	1 dining hall for 92 men.	53½	24	16	4,170	With 10' verandah on 3 sides. With 7' verandah in front containing 1 fuel store 6½' × 2½'.	119 B. I. modified.
	1 kitchen	15	18	13			
	1 scullery	18½	8	13			
	1 cook's room.	8	8	8			
	1 meat store	10	8	8			
	(b) Latrine—				410	To be placed in a central position between the barracks	132 B. I. modified.
	Privy of 7 seats	18½	8½	7½			
	Cart shed	11	8	7			
	Sweeper's room	8	6	7½			
	(c) Lavatories—				650		133 B. I. modified.
	2, each containing—						
	1 room for 12 basins	18	16	9			
	4 private bath-rooms	6½	6½	9			
	(d) Urinaries—						133 B. I.
	2, each containing—						
	double compartment	6½	5	7			
	(e) Company, R. O. A.						
	2 barracks, each containing—				13,280	The strength is 134 rank and file, of whom 6 are married. Accommodation is required for 129 single men and 2 sergeants.	4 R. A. modified.
	1 sergeant's quarter	as in item	22				
	64 men { 4 dormitories each	60	24	16			
	Store room	10½	8	9½			

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and series
		ft.	Ft.	Ft.	Sq. ft.		
63	BARRACKS FOR SINGLE BATTALION—contd.						
	(a) Combined dining hall and kitchen—						
	2 rooms for 65 men, each	38	24	16	6,770	With 10' verandah on 3 sides. With 7' verandah in front containing 2 fuel stores 6½' x 2½' each.	119 B.I. modified.
	1 kitchen	30	18	13			
	2 sculleries, each	18½	8	13			
	2 cooks' rooms, each	8	8	8			
	2 meat stores	10	8	8			
	(b) Latrine—						
	Privy of 10 seats	27½	12	9	730	To be placed in a central position between the barracks	133 B.I. modified.
	Cart-shed	11	8	7			
	Sweeper's room	8	6	7½			
	Dry earth shed	5½	4	4½			
	(c) Lavatories—						
	2 lavatories, each containing—						
	Room for 12 basins	18	16	9	650	One urinary for each barrack.	138 B.I. modified.
	4 private bath-rooms	6½	5	8			
	(d) Urinaries—	as in	(tr)		43		133 B.I.
	(vi) R. H. A. ammunition column						
	1 barrack containing—	as in item	23		4,540	The strength is 15 rank and file, of whom 1 is married. Accommodation is required for 1 single sergeant and 15 single men. This will usually be attached to one of the battalions.	4 R.A. modified.
	1 sergeant's quarter						
	1 dormitory for 14 men	52½	24	16			
	store-room	10	8	9½			
	(a) Combined dining hall and kitchen—	..	..	..	.....
	(b) Latrine—						
	Privy of 2 seats	5½	8½	7½	80	.....	138 B.I. modified.
	(c) Latrine—						
	1 room for 4 basins . . . . .	}	..	..	..	To be provided in one of the battery section lavatories, which must be enlarged accordingly.	138 B.I. modified.
	1 private bath-room						
	(d) Urinaries—						
	single compartment	6½	2½	7	28		133 B.I.
	(vi) R.F.A. ammunition column						
	1 barrack containing—	as in item	23		13,135	The strength is 58 rank and file, of whom 2 will be married. Accommodation is required for 2 single sergeants and 56 single men.	4 R.A. modified.
	2 sergeants' quarters						
	2 dormitories, each for 18 men	67½	24	16			
	1 dormitory for 20 men	75	24	16			
	store-room	10	9	9½			
	(a) Combined dining hall and kitchen						
	1 dining hall	32½	24	16	3,195	With 10' verandah on 3 sides. With 7' verandah in front containing 1 fuel store, 6½' x 7½'.	119 B.I. modified.
	1 kitchen	16	18	13			
	1 scullery	18½	8	13			
	1 cook's room	8	8	8			
	1 meat store	10	8	8			

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks	Type plan and series.
68	BARRACKS FOR SINGLE RANK AND FILE— <i>cond.</i> (b) <i>Latrine.</i> 4 seats as for a section R. H. A. or R. F. A. (c) <i>Lavatory</i> do. (d) <i>Urinary</i> do. (vi) <i>British mountain battery in the hills</i> 2 barracks each containing— 2 sergeants' quarters 38 men { 2 dormitories for 12 men, each 1 dormitory for 14 men 1 barrack containing— 1 sergeant's quarter 2 dormitories for 14 men, each 1 dormitory for 12 men (a) <i>Combined dining hall and kitchen</i> 1 room for 116 men 1 kitchen 1 scullery 1 cook's room 1 meat store	Ft. as in item 36 42 as in item 42 36 52½ 15 12 8 10	Ft. as in item 22 22 22 22 22 22 22 16 8 8	Ft. 22 10 10 10 10 10 10 10 8 8	Sq ft. 135 620 100 4,865 4,553 2,280	The strength is 120 rank and file, of whom 5 are married. Accommodation is required for 116 single men, to be given in 3 section barracks with one sergeant's quarter in each. 6' verandah in front. With 7' verandah in front containing 1 fuel store, 6' x 3½'.	132 B. I. modified. 138 B. I. modified. 133 B. I. 1 hutted camp. 1 hutted camp. 9 hutted camp, modified.
69	BARRACKS FOR MARRIED RANK AND FILE <i>In the plains.</i> (i) <i>Battery, R. H. A. or R. F. A. on higher establishment.</i> Block of 7 class B quarters (ii) <i>Battery, R. H. A. or R. F. A. on lower establishment.</i> Block of 8 class B quarters (a) <i>Cook-houses—</i> (b) <i>Latrines</i> (d) <i>Urinary</i> 2, of one compartment, each. (iii) <i>R. H. A. ammunition column—</i> 1 quarter (a) <i>Cook-house—</i> (b) <i>Latrine</i> (d) <i>Urinary</i> (c) <i>R. F. A. ammunition column.</i> Block of 2 class B quarters Subsidiary buildings	as in item as in item as in item as in item see para 2½ as in item as in item as in item as in item as in item as in item as in item	21(i) 21(i) 21 21 21 21 21 21 21 21 21 21	28 7 21 21 28 21 21 21 21 21 21 21	10,083 8,802 (i) (a) 28 (i) (a) (i) (a) (i) (a) (i) (a) (i) (a) (i) (a) (i) (a) (i) (a) (i) (a)	Accommodation is required for $\frac{164 \times 4}{100}$ —say 7 families. Accommodation is required for $\frac{142 \times 4}{100}$ —say 6 families. May be combined if the barracks are close. Accommodation is required for $\frac{15 \times 4}{100}$ —say 1 family. This should usually be attached to the family quarters for the R. H. A. battery. Accommodation is required for $\frac{54 \times 4}{100}$ —say 2 families. They should usually be attached to the R. F. A. battery family quarters.	133 B. I.

Item No.	Buildings.	Length.	Breadth.	Height.	Floor area, approximate.	Remarks.	Type plan and series.
69	BARRACKS FOR MARRIED MAN AND WIFE— <i>conold.</i> (r) <i>Howitzer battery.</i> Block of 7 class B quarters	as in	item	21 (i)	10,083	Accommodation is required for $\frac{170 \times 4}{100} = \text{say } 7 \text{ families.}$	133 B. I. modified.
	(a) Cook-houses	as in	item	21	(i) (a)		
	(b) Latrines	see	para	28			
	(d) Urinaries	as in	(ii)		28	See remarks against (i) (d)	
	(vi) <i>Howitzer brigade ammunition column.</i> Block of 2 class B quarters	as in	item	21 (i)	3,768	Accommodation is required for $\frac{46 \times 4}{100} = 2 \text{ families. They}$	
	(a) Cook-house	as in	item	21	(i) (a)	would usually be attached to the family quarters for the howitzer battery.	
	(b) Latrines	see	para	28			
	(d) Urinary	6½	2½	7	28		
	(vii) <i>Heavy battery.</i> Block of 4 class B quarters	as in	item	21 (i)	6,285	Accommodation is required for $\frac{96 \times 4}{100} = 4 \text{ families.}$	
	(a) Cook-house	as in	item	21	(i) (a)		
	(b) Latrine	see	para	28			
	(d) Urinary	6½	2½	7	28		
	(viii) <i>Company, R. G. A.</i> Block of 5 class B quarters	as in	item	21 (i)	7,566	Accommodation is required for $\frac{134 \times 4}{100} = 5 \text{ families.}$	1 hut- ted camp 10-hutted camp.
	(a) Cook-houses—	as in	item	21	(i) (a)		
	(b) Latrine	see	para	28			
	(d) Urinaries, 2	as in	(ii)		28	One for each block.	
	(ix) <i>British mountain battery.</i> <i>In the hills</i> Block of 5 class B quarters	as in	item	21 (ii)	7,566	Accommodation is required for $\frac{120 \times 4}{100} = \text{say } 5 \text{ married men}$	
	(a) Cook-houses	as in	item	21	(i) (a)		
	(b) Latrines	see	para	28			
	(d) Urinaries	6½	2½	7	28		
70	QUARTERS FOR STAFF SERJEANTS AND SER- JEANTS <i>In the plains</i> (i) <i>For a battery, R. H. A. or R. F. A. on higher establishment</i> Block of 7 class B quarters	as in	item	21 (i)	10,083	There are 2 staff sergeants 8 sergeants, and 1 carriage arti- ficer, of whom 56 per cent. or 7 are to be provided with family quarters. The remain- der are to be accommodated in the three quarters at the end of the single men's barracks and in the institute quarters	
	(ii) <i>For a battery, R. H. A. or R. F. A. on lower establishment.</i> Block of 6 class B quarters	as in	item	21 (i)	8,503		
	(iii) <i>For R. H. A. am- munition column.</i> Block of 2 class B quar- ters	as in	item	21 (i)	3,768	These will usually be attached to family quarters for the battery.	
	(iv) <i>For R. F. A. ammunition column</i> Block of 4 class B quar- ters	as in	item	21 (i)	6,285	Ditto ditto.	
	(a) Cook-houses	as in	item	21	(i) (a)		
	(b) Latrines	see	para	28			
	(c) Urinaries	6½	2½	7			
	(d) Latrine	see	para	28			
	(e) Urinary	6½	2½	7			
	(f) Urinary	6½	2½	7			

Item No.	Buildings.	Length.	Breadth.	Height.	Floor area, approximate.	Remarks.	Type plan and series.
70	QUARTERS FOR STAFF SERJEANTS AND SERJEANTS— <i>conold.</i> (v) <i>For a Howitzer battery.</i> Block of 6 class B quarters (a) Cook-houses (b) Latrines (vi) <i>For a Howitzer brigade ammunition column</i> One block of 4 class B quarters (a) Cook-houses (i) Latrine (ii) <i>For a heavy battery</i> Block of 6 class B quarters (a) Cook-houses (b) Latrine (iii) <i>For a company, R. G. A.</i> Block of 3 class B quarters (a) Cook-houses (b) Latrine (iv) <i>For a British mountain battery. In the hills.</i> One block of 6 class B quarters (a) Cook-houses (b) Latrines 71 QUARTERS FOR WARRANT OFFICERS AND STAFF SERJEANTS, R. A. STAFF. For classes of quarters authorised, see items 19 and 20 72 QUARTERS FOR INDIAN ESTABLISHMENT. <i>For a British mountain battery in the hills</i> In blocks as convenient— Fighting men— Each married man Each single havildar Each single man Followers— Each married man Each single man	Ft. Ft.<					

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. ft.		
72	<p>QUARTERS FOR INDIAN ESTABLISHMENT—<i>contd.</i> <i>For a British mountain battery in the hills—concl.</i> (a) Cooking sheds (open) about 9 sq. ft. per man</p>					<p>The total cost of this accommodation is not to exceed Rs 12,000, and the number of quarters for married men is to be reduced to effect this. Planking under the iron roof is unnecessary unless the huts are to be occupied in winter. No scale is laid down, but the G. of I. will consider each case on its merits.</p>	
73	<p>BLACKSMITHS' FORGE AND SHOEING SHED. <i>In the plains</i> (i) Battery, R.H.A., R.F.A., or R.H.A. ammunition column, a howitzer battery or a howitzer brigade ammunition column. Forge 30 20 16 Store-room 20 8½ 16 Shoeing-shed 41 15 10 } 1,820 (ii) Heavy battery, R.G.A. as in (i) 1,600 (iii) R.F.A. ammunition column— Forge 32 20 16 Store-room 20 8½ 10 2 shoeing sheds, each 42½ 16 10 } 2,410 <i>In the hills</i> (iv) British mountain battery. Forge 20 20 10 Store-room 8 20 10 Shoeing-shed 33 9 9 } 1,070</p>					<p>See para 41</p> <p>But shoeing-shed is 10' broad instead of 15'.</p> <p>To hold 2 forges See para 41</p> <p>Hall hot type with 9' verandah centrally situated as regards the stables.</p>	<p>9 B. C. modified.</p> <p>9 B. C. modified.</p> <p>86 I. M. B.</p>
74	<p>CARPENTERS' AND COLLAR-MAKERS' WORKSHOPS <i>In the plains</i> (i) Battery, R.H.A., R.F.A., R.F.A. ammunition column, howitzer battery or howitzer brigade ammunition column— Carpenters' shop 30 20 16 Collar-makers' shop 30 20 16 } 3,160 (d) Urinary— 1 compartment 6½ 2½ 7 28 (ii) R.H.A. ammunition column— Carpenters' shop 20 20 16 Collar-maker's shop 20 20 16 } 1,985 (d) Urinary as in (i) 23 (iii) Heavy battery, R.G.A.— Carpenters' shop 27 20 16 Collar-maker's shop 27 20 16 } 2,170</p>					<p>Not to be provided if a latrine or urinary exists near.</p> <p>See remarks above.</p>	33 B. L.

Item No.	Buildings	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and series.
74	CARPENTERS' AND COLLAR-MAKERS' WORKSHOPS— <i>concl'd.</i>	Ft.	Ft.	Ft.	Sq. ft.		
	(d) Urinary In the hills	as	in	(i)	28	See remarks above	
	(iv) British mountain battery						
	Carpenters' shop	20	20	10	1,460	Hill hot type with 9' verandah.	85 I.M.B. modified.
	Collar-makers' shop	20	20	10			
	(d) Urinary	as	in	(i)	16	See remarks above.	
75	RECREATION GROUND	see	para.	51			
76	DRY EARTH SHED	10	10	8	180	For five months' supply, but	
77	FIRE ENGINE SHED	see	item	28		see para 31.	
78	FIVES COURT	see	item	29			
79	GUN-SHED In the plains.						
	(i) Battery, R. H. A. or R. F. A. on higher establishment—						
	Gun-shed	92	46	10	5,580	Provides for 20 carriages parked 2 deep.	24 C. R.A.
	Store-room	12	47½	9			
	(ii) Battery, R. H. A. or R. F. A. on lower establishment—						
	Gun-shed	65	46	10	4,198	Provides for 14 carriages parked 2 deep	24 C. R.A. modified.
	Store-room	12	47½	9			
	(iii) E. H. A. ammunition column—						
	Gun-shed	83	40	10	4,519	For 17 carriages parked 2 deep	24 C. R.A. modified.
	Store-room	12	44½	9			
	(iv) R. F. A. ammunition column—						
	3 gun-sheds, each	92	40	10	14,610	Each for 20 carriages parked 2 deep	Ditto.
	1 store-room	12	40	10			
	2 store-rooms, each	12	41½	9			
	(v) Howitzer battery—						
	Gun shed (10 bays)	92	47	10	5,670	The number of carriages is 19	Ditto.
	Gun park store-room	12	48½	10			
	(vi) Howitzer ammunition column—						
	Gun-shed (12 bays)	110	47	10	6,600	The number of carriages is 30	Ditto
	Gun park store-room	12	48½	10			
	(vii) Heavy battery, R. G. A.						
	Gun-shed	106½	50½	10	6,900	Verandah 10' wide in the clear in front, and not lower in height than 6' 8". Low movable wooden frames to be given for the ammunition boxes to rest on Racks for side arms, entrenching tools, etc., to be fixed to the rear and side walls. Sliding doors to be given. Small ground ventilators in the walls.	24 D & E. R. A. 24 A & B. R. A.
	Gun park store-room	12	52	10			
	(viii) British mountain battery—						
	Gun-shed	48	24	10½	1,263		
80	GYMNASIUM	see	item	30			

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.		
		Ft.	Ft.	Ft.	Sq. ft.				
81	HARNESS ROOMS—					9' verandah in front and back Are not to be provided in the lower rooms of double storied barracks. For design of saddle racks and harness pegs see type plan 29 B.			
	<i>In the plains.</i>								
	(i) <i>Battery, R. H. A.</i>								
	<i>Higher establishment—</i>								
	2 harness rooms, each . . .	42	18	16	6,140	One room for each section	29 A. R. A.		
	1 harness room . . .	40	18	16					
	2 store-rooms, each . . .	18	12	16					
	<i>Lower establishment—</i>								
	2 harness rooms, each . . .	34	18	16	5,120	One room for each section	29 A. R. A. modified.		
	1 harness room . . .	30	18	14					
	2 store-rooms, each . . .	18	12	16					
	(ii) <i>Battery, R. F. A.,</i>								
	<i>higher establishment—</i>								
	<i>Lower establishment—</i>								
	2 harness rooms, each . . .	23	18	16	3,840	One room for each section	29 A. R. A. modified.		
	1 harness room . . .	19	18	16					
	2 store-rooms, each . . .	18	12	16					
	(iii) <i>R H A ammunition column—</i>								
	1 harness room . . .	30	18	16	2,760	One room for each section	29 A. R. A. modified.		
	1 " " . . .	23	18	16					
	1 store-room . . .	18	12	16					
	(iv) <i>R F A ammunition column—</i>								
	3 harness rooms, each . . .	58	18	16	8,690	One room for each section	29 A. R. A. modified.		
	2 store rooms, each . . .	18	12	16					
	(v) <i>Howitzer battery—</i>								
	2 harness rooms, each . . .	32	18	16	4,970	One room for each section	29 A. R. A. modified.		
	1 harness room . . .	30	18	16					
	2 store-rooms, each . . .	18	12	16					
	(vi) <i>Howitzer brigade ammunition column—</i>								
	2 harness rooms, each . . .	40	18	16	6,060	One room for each section	29 A. R. A. modified.		
	1 harness room . . .	42	18	16					
	2 store-rooms, each . . .	18	12	16					
	<i>In the hills</i>								
	(vii) <i>British mountain battery—</i>								
	3 harness rooms, each . . .	34	18	10	5,280	One room for each section	29 A. R. A. modified.		
	2 store-rooms, each . . .	18	12	10					
82	INSTITUTES								
	<i>In the plains</i>								
	(i) <i>Battery, R. H. A</i>					For other portions of the institute see item 31			
	<i>or R. F. A., a heavy battery or a company of R. G. A.—</i>								
	Liquor bar portion—					The authorized area, exclusive of space taken up in verandahs, is 786 sq. ft.	21 B. R. A. modified.		
	Privates' room . . .	14	24	16	2,920				
	Bar and issue room . . .	20	12	16					
	Beer store . . .	20	10½	16					
	Corporals' room . . .	20	10½	16					
	(b) <i>Latrine—</i>								
	Privy of 1 seat . . .	4	3	.	40	Not to be given when there is a barrack latrine near.	132 B. I. 133 B. I.		
	(d) <i>Urinary—</i>								
	1 compartment . . .	6½	2½	7	23				
	(ii) <i>Howitzer battery—</i>								
	Liquor bar portion—					The authorized area, exclusive of space taken up in verandahs, is 786 sq. ft.	21 B. R. A. modified.		
	Privates' room . . .	18	24	16	3,310				
	Bar and issue room . . .	12	24	16					
	Beer store . . .	10½	24	16					
	Corporals' room . . .	10½	24	16					
	Subsidiary buildings . . .	as in item (i)							

Item No.	Buildings.	Length.	Breadth	Height	Plinth area, approximate.	Remarks.	Type plan and site
82	INSTITUTE—concl'd.	Ft.	Ft.	Ft.	Sq. ft.		
	(iii) 2 batteries, R. H. A. or R. F. A., or 2 companies, R. G. A.— Liquor bar portion— Privates' room Bar and issue room } Beer store Corporals' room	23	24	16	3,700	The authorized area, exclusive of space taken up in verandahs, is 1,176 sq. ft.	21 A R. A. modified.
	(iv) 3 batteries, R. H. A. or R. F. A., 3 companies, R. G. A., or 2 howitzer batteries with or without the howitzer brigade ammunition columns. Liquor bar portion— Privates' room Bar and issue room and beer store } Corporals' room Sergeant's quarter	14	24	16			
		12	24	16			
		27	24	16			
	(b) Latrine (d) Urinary (v) 4 batteries, R. H. A. or R. F. A., or 4 companies, R. G. A.— Liquor bar portion— Privates' room Bar and issue room Beer store Corporals' room Sergeant's quarter Theatre (b) Latrine (d) Urinary— 2 compartments In the hills (vi) British mountain battery. Liquor bar portion— Privates' room Bar or issue room Beer store Corporals' room Subsidiary buildings	as in item 22	as in (i)	...	4,700	The authorized area, exclusive of the space taken up in verandahs, is 1,834 sq. ft.	21A, R. A. modified.
		10	24	16			
		24	24	16			
		as in item 22	as in (i)	...			
	(b) Latrine (d) Urinary— 2 compartments In the hills (vi) British mountain battery. Liquor bar portion— Privates' room Bar or issue room Beer store Corporals' room Subsidiary buildings	as in item 22	as in (i)	...	49	See remarks against (i) (b).	21 A. R. A. modified.
		50	24	16			
		6½	5	7			
		as in item 22	as in (i)	...			
	(i) For a battery, R. H. A. or R. F. A. heavy battery or a company, R. G. A. dirty clothing room making up room In the hills. (ii) For a British mountain battery. Laundry store	15	13	13½	605	The authorized area, exclusive of space taken up in verandahs, is 678 sq. ft.	1 hutted camp modified.
		20	13	13½			
81A	LAUNDRY STORE. In the plains (i) For a battery, R. H. A. or R. F. A. heavy battery or a company, R. G. A. dirty clothing room making up room In the hills. (ii) For a British mountain battery. Laundry store	15	13	13½	605	74 B. I.
		20	13	13½			
		as in item (i)	as in (i)	(i)	605		

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks	Type plan and series.
87	QUARTER GUARD AND DETENTION ROOMS <i>In the plains.</i> (i) <i>Battery or company, R. A.</i> Guard room for 7 men Guard detention room for 6 men 3 barrack detention rooms, each (b) Latrine— of 2 seats (1 for guard and 1 for soldiers under sentence) 2 compartments, each Covered passage for sentry. (c) Lavatories— 1 room for 6 basins 2 private bath-rooms (d) Urinary— 1 compartment <i>In the hills.</i> (ii) <i>British mountain battery.</i> Guard room for 7 men. Guard detention room for 6 men 3 barrack detention rooms, each. (b) Latrine— of 2 compartments of 1 seat each Covered passage for sentry (c) Lavatories— 1 room for 4 basins 1 private bath-room (d) Urinary	Ft. 30 22½ 13 12 5 16 6½ 6½ 24 18 10 2½ 4 5½ 5½ as	Ft. 24 24 10 8½ 4 14 4½ in	Ft. 16 16 16½ 9 9 9 7 7 8 8 (i)	Sq. Ft. 3,750 1,800 180 360 28 1,530 770 134 182 28	For two batteries the accommodation may be rather less in proportion. For a howitzer battery the guard detention room should be 30' x 24' for 8 men, and 4 barrack detention rooms should be given. For 2 howitzer batteries and the brigade ammunition column the accommodation would be the same as for a detached wing of British infantry Hill hut type with 9 verandah in front.	64A to 64D modified. 64 B B I. modified. 64 B. B. I. modified. 133 B I.
88	QUARTERMASTER'S STORES. <i>In the plains.</i> (i) <i>R. A. Hd Qrs.</i> Store-room (ii) <i>Battery, R. H. A. or R. F. A., a howitzer battery, or howitzer brigade ammunition column</i> Store-room Tailors' shop Quartermaster's office Dry store (d) Urinary 1 compartment (iii) <i>R. H. A. ammunition column.</i> Store-room Tailors' shop Quartermaster's office Dry store (d) Urinary	24 29 24 24 13 6½ 20 20 20 13 as	24 24 10 8½ 9 7 11 11 11 9 (is)	11 11 11 9 7 11 11 11 9 (is)	690 2,540 28 2,000 28	This store-room should be attached to the store-rooms for the R. A. located at the same station. The store-room in the gun-shed is intended for gun stores only, and is quite separate from the quartermaster's store. Not to be provided if a latrine or urinary exists conveniently near. See remarks against (ii)	CS B I. modified. 133 B. I. CS B I. modified.

Item No.	Buildings	Length.	Breadth.	Height.	Plinth area, approximate	Remarks	Type plan and series
88	QUARTERMASTER'S STORES— <i>condid.</i> (iv) R. F. A. ammunition column. Store-room . . . Tailors' shop . . . Quartermaster's office . . . Dry store . . . (d) Urinary . . . (v) Heavy battery or company, R. G. A. Store-room . . . Tailors' shop . . . Quartermaster's office . . . Dry store . . . (d) Urinary . . . <i>In the hills.</i> (vi) British mountain battery. 1 store-room . . . 1 " " . . . Tent store . . . Quartermaster's office . . . Tailors' shop . . . Dry store . . . (d) Urinary . . .	Ft. 53 24 24 13 as 24 24 24 13 as 24 21 20 10 10 10 as	Ft. 24 16 10 8½ in 22 15 10 8½ in 20 20 20 20 20 20 in	Ft. 11 11 11 9 (ii) 11 11 11 9 (ii) 10 10 10 10 10 10 10 (ii)	Sq Ft 3,440 28 2,840 29 2,490 28	See remarks against (i). See remarks Hill hut type	68 B. I. modified. 68 B. I. modified.
89	RANGES . . .	..	..	...	...	Stop butts are not necessary on artillery ranges. If any works should be found necessary, the orders of the G. of I. as to the incidence of east should be taken, if at all doubtful.	
90	RIDING SCHOOL <i>In the plains.</i> (i) Battery, R. H. A. or R. F. A. or R. H. A. ammunition column, a howitzer battery, or a howitzer brigade ammunition column. One mantgls . . . (ii) R. F. A. ammunition column. Two mantgls, each . . .	...	..	...	...	See para 48 A. See remarks against (i).	37 R. A. 37 R. A. and 37 A. R. A.
91	SCHOOLS. <i>In the plains</i> (i) Battery, R. H. A. or R. F. A., or heavy battery, R. G. A. Class room for 32 men . . . " " " 20 children . . . 2 water-rooms, each . . . (b) Latrine— Privy for boys . . . " " Girls . . . Urinary for boys . . . Dry earth shed . . .	26 18 10 10½ 10½ 4½ 4½	24 24 6 5½ 5½ 3½ 3½	16 16 11 9 9 3½ 3½	2,910 260	See para 41 10 verandah on two sides and at one end. For a R. F. A. ammunition column in addition, the battery school should be enlarged to provide for 10 men and 6 children of the column. No additional accommodation is required for a R. H. A. ammunition column.	71 C. B. I. 71 E. B. I.

Item No.	Buildings	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
93	STABLES—contd	Ft.	Ft.	Ft.	Sq. Ft.		
(i) <i>Battery, E. H. A. on higher establishment—contd.</i>							
Two stables each for 54 horses—							
6 compartments, each for 9 horses, each	72	14		}	8,615		
Central passage	221	5					
(d) 4 urinaries of 2 compartments, each	64	5	7		48	One for each set of stables.	133 B.I. modified.
(ii) <i>Battery, R. H. A. on lower establishment.</i>							
Two stables each for 56 horses	as	in	(i)		8,980	The number of horses is 164	
One stable for 52 horses							18 B.C. modified.
4 compartments, each for 9 horses, each	72	14		}	8,300		
2 compartments, each for 8 horses, each	64	14					
Central passage	218	5					
(d) 3 urinaries	as	in	(i)		48	One for each set of stables.	133 B.I.
(iii) <i>Battery, R. F. A. on higher establishment</i>							
Three stables each for 56 horses	as	in	(i)		8,930	The number of horses is 168	
(d) 3 urinaries	as	in	(i)		48	One for each set of stables	133 B.I.
(iv) <i>Battery, R. F. A. on lower establishment.</i>							
						The number of horses is 115	
Two stables each for 58 horses—							18 B.C. modified.
2 compartments, each for 9 horses, each	72	14		}	9,240		
4 compartments, each for 10 horses, each	80	14					
Central passage	237	5					
(d) 2 urinaries	as	in	(i)		48	One for each set of stables.	133 B.I.
(v) <i>R. H. A. ammunition column.</i>							
One stable for 52 horses.	as	in	(i)		8,300	The number of horses is 101.	
One stable for 50 horses—							18 B.C. modified.
4 compartments, each for 8 horses, each	64	14		}	7,000		
2 compartments, each for 9 horses, each	72	14					
Central passage	205	5					
(d) 2 urinaries	as	in	(i)		48	One for each set of stables.	13 B.I.
(vi) <i>R. F. A. ammunition column.</i>							
Six stables for 53 horses, each	as	in	(i)		9,240	The number of horses is 318.	18 B.C. modified.
(d) 6 urinaries	as	in	(i)		48	One for each set of stables.	133 B.I.
(vii) <i>Howitzer battery.</i>							
Three stables each for 56 horses	as	in	(i)		8,930	The number of horses is 167.	18 B.C. modified.
(d) 3 urinaries	as	in	(i)		48	One for each set of stables	133 B.I.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area approximate	Remarks.	Type plan and series.
93	STABLES—conold <i>(viii) Howitzer brigade ammunition column.</i> Three stables each for 60 horses— 6 compartments, each for 10 horses, each . . . Central passage . . . One stable for 55 horses . . . (d) 4 urinals . . . (ix) <i>Heavy battery (fully horsed)</i> One stable for 68 horses— 4 compartments, each for 12 horses, each . . . 2 compartments, each for 10 horses, each . . . Central passage . . . One stable for 68 horses— 4 compartments, each for 12 horses, each . . . 2 compartments, each for 9 horses, each . . . Central passage . . . (d) 2 urinals . . .	Ft. 80 245 as as 96 80 277 96 72 269 as	Ft. 14 5 in in 14 14 6 14 14 5 in	Ft. (i) (i) (i)	Sq. ft. 9,550 9,240 48 10,800 10,490 48	The number of horses is 238. One for each set of stables. The number of horses is 133. One for each set of stables.	18 E.C. modified 133 B. I. 18 B. C. modified. Do. 133 B. I.
94	KAHAR'S HUT. For a battery or company, R. A.— Hut for 4 kahars . . .	20	12	10	360	To be built near the quarter guard.	
95	VETERINARY HOSPITAL	see item	33			They will usually be required for drinking water and cook-houses, for the lavatories and the soldiers' gardens; and for the stables, a trough being attached.	3 Misc.
96	WELLS . . .	as required					
97	BRITISH INFANTRY IN THE PLAINS. BARRACKS FOR SINGLE RANK AND FILE. (i) <i>For a battalion</i> 7 barracks each containing— 1 serjeant's quarter . . . 1 dormitory for 16 men . . . 58 men { 3 dormitories for 14 men, each . . . 1 store room . . . 1 barrack as above but with 3 serjeants' quarters, instead of one 9 barracks each containing— 2 serjeants' quarters . . . 58 { 4 dormitories for 14 men, each . . . 1 store room . . .	as in item 61 52 9 as in item 52 9	item 24 24 9 item 22 24 9	23 16 16 9 22 16 9	12,770 13,620 13,330	The rank and file number 958 of whom married men 12 band . . . 20 drummers . . . 16 leaving 908 to be accommodated in single men's barracks; the best arrangement is eight a half company barrack. As the band consists of 1 serjeant, 20 men and 16 drummers, the accommodation given allows room for band practice. In Highland regiments 1 serjeant piper and 5 pipers are additional to the band	6 A to I. 6 A to I. B I. modified.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks	Type plan and series.
97	BARRACKS FOR SINGLE RANK AND FILE— <i>contd.</i>	Ft.	Ft.	Ft.	Sq. Ft.		
	(a) 4 combined dining halls and kitchens, each containing—					One for two companies.	
	27 { 2 rooms for 114 men, each . . .	66½	2½	16	9,440	With 10' verandah on 3 sides.	119 B. I.
	1 kitchen . . .	30	18	13		With 7' verandah in front containing 2 fuel stores each 6' x 2½'.	
	2 sculleries, each . . .	18½	8	13			
	2 cooks' rooms, each . . .	8	8	8			
	2 meat stores, each . . .	10	8	8		For the band.	
	1 combined dining hall and kitchen containing—						
	1 room for 36 men . . .	21	2½	16	2,600	With 10' verandah on 3 sides	
	1 kitchen . . .	15	1½	13		With 7' verandah in front containing 1 fuel store 6½' x 2½'.	119 B. I. modified.
	1 scullery . . .	18½	8	13			
	1 cook's room . . .	8	8	8			
	1 meat store . . .	10	8	8			
	(b) Latrines 8, each containing—						
	Privy of 8 seats . . .	21½	12	9	610	One for each company.	132 B. I.
	Cart-shed . . .	11	8	7			
	Sweeper's room . . .	8	6	7½			
	Dry earth shed . . .	5½	4	4½			
	One latrine—						
	Privy of 1 seat . . .	11	12	9	200	For the band barrack.	132 B. I. modified.
	(c) Lavatories 8, each containing—						
	Room for 20 basins & private bath-rooms	30	16	9	1,120	One for each company.	133 B. I.
	One lavatory—	6½	5	9			
	Room for 10 basins & private bath-rooms	13	10	9	600	For the band barrack.	133 B. I. modified.
	One lavatory—	6½	5	9			
	(d) Urinals, 17—						
	Of 3 compartments, each . . .	6½	5	7	43	One for each half company barrack and for the band barrack, they may be combined, if convenient	133 B. I.
	(ii) For a head-quarter wing.						
	Band barrack containing—					The strength of a head-quarter wing in rank and file is 634, of whom married men number 7, band 20, drummers 8-35, leaving single men 499; allow 8 half company barracks for 62 each, and 1 for the band for 48 men.	3A to I. B. I. modified.
	1 sergeant's quarter . . . as in item			22	10,550		
	43 { 3 dormitories for 16 men, each . . .	60	2½	16			
	1 store-room . . .	9½	9	9½			
	5 barracks, each containing—						
	2 sergeant's quarters . . . as in item			22	14,120		3A to I. B. I. modified.
	62 { 3 dormitories for 16 men, each . . .	60	2½	16			
	1 dormitory for 16 men . . .	62½	2½	16			
	1 store-room . . .	9½	9	9½			
	3 barracks, each containing—						
	1 sergeant's quarter . . . as in item			22	13,600		3A to I. B. I. modified.
	Dormitories for 62 men—	as above					

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
		Pt.	Fl.	Ft.	Sq. Ft.		
97	BARRACKS FOR SINGLE RANK AND FILE— <i>contd.</i>						
	(a) 2 combined dining halls and kitchens, each containing—					Each for 2 companies.	
	248 { 2 rooms for 124 men { men, each . . . 72½	24	16			With 10' verandah on 3 sides.	110 B. I. modified.
	1 kitchen . . . 30	18	13			With 7' verandah in front containing 2 fuel stores, each 6½' x 2½'.	
	2 sculleries, each . . . 18½	8	13		10,110		
	2 cooks' rooms, each . . . 8	8	8				
	2 meat stores, each . . . 10	8	8			For band barrack.	
	1 combined dining hall and kitchen containing—						
	1 room for 28 men . . . 16½	24	16			With 10' verandah on 3 sides.	110 B. I. modified.
	1 kitchen . . . 16	18	13			With 7' verandah in front containing 1 fuel store 6½' x 2½'.	
	1 scullery . . . 18½	8	13		2,380		
	1 cook's room . . . 8	8	8				
	1 meat store . . . 10	8	8				
	(b) Latrines, 4 of 8 seats, and 1 of 4 seats . . . as in (c)				610	One for each company.	132 B. I.
	(c) Lavatories, 4 large and 1 small . . . as in (c)				200	For the band	
	(d) Urinals, 9 . . . as in (c)				1,120	One for each company.	138 B. I.
	(e) For the detached wing.				600	For the band.	
	4 barracks each containing—				48	See remarks against (v) (d).	133 B. I.
	1 sergeant's quarter . . . as in item 22						
	52 men { 2 dormitories for 14 men, each . . . 52½	24	16			The strength of a detached wing is 422 rank and file, of whom five are married leaving 417 single men; this gives 8 barracks for 53 men each.	6 A. to L. B. I. modified.
	2 dormitories for 12 men, each . . . 45	24	16		11,680		
	4 barracks containing—						
	2 sergeants' quarters . . . as in item 22						
	Dormitories for 52 men . . . as above				12,600		
	(a) 2 combined dining halls and kitchens, each containing—					Each for 2 companies.	
	208 { 2 rooms for 104 men { men, each . . . 60½	24	16			With 10' verandah on 3 sides.	110 B. I. modified.
	1 kitchen . . . 30	18	13			With 7' verandah in front containing 2 fuel stores, each 6½' x 2½'.	
	2 sculleries, each . . . 18½	8	13		8,975		
	2 cooks' rooms, each . . . 8	8	8				
	2 meat stores, each . . . 10	8	8				
	(b) Latrines, 4 of 8 seats . . . as in (c)				610	One for each company.	132 B. I.
	(c) Lavatories, 4 large . . . as in (c)				1,120	Ditto.	138 B. I.
	(d) Urinals, 8 . . . as in (c)				48	See remarks against (v) (d)	133 B. I.
98	BARRACKS FOR MARIED RANK AND FILE						
	(i) For a Battalion—						
	One block of 12 class B quarters . . . as in item 21 (v)	21	7		16,352	The family quarters to be provided are $\frac{125 \times 95A}{100}$, say 12 quarters.	
	(a) Cook-houses . . . as in item 21 (v) (a)						
	(b) Latrines—	see para.	23				182 B. I. modified.
	(d) Urinals, 2—						183 B. I.
	1 compartment, each . . . 6½	2½	7		23	One for each block.	

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type, plan and section.
98	BARRACKS FOR MARRIED RANK AND FILE— <i>concl'd.</i>	Ft.	Ft.	Ft.	Sq. Ft.		
	(i) For a head-quarter wing. One block of 7 class B quarters	as in item	21 (i)	21 (i)	10,033	The family quarters to be provided are $\frac{125 \times 534}{100}$ say 7 quarters.	
	(a) Cook-houses	as in item	21	(i) (a)			
	(b) Latrines—	see para.	28			For the two blocks.	133 B. I. modified.
	(d) Urinaries, 2— 1 compartment, each	6½	2½	7	28	One for each block.	133 B. I.
	(iii) For a detached wing. One block of 5 class B quarters	as in item	21 (i)	21 (i)	7,566	The family quarters to be provided are $\frac{125 \times 423}{100}$ say 5 quarters.	
	(a) Cook-house—	as in item	21	(i) (a)			
	(b) Latrines—	see para.	28				
	(d) Urinary— 1 compartment	6½	2½	7	28		133 B. I. modified. 133 B. I.
99	WARRANT OFFICERS' QUARTERS For a battalion or a head-quarter wing— 4 class D quarters with outhouses	as in item	19		2,820	1 for the sergeant-major. 1 " " bandmaster. 1 " " schoolmaster. 1 " " schoolmistress.	
100	QUARTERS FOR STAFF SERJEANTS AND SERJEANTS.						
	(i) For a battalion— One block containing 1 class A and 8 class B quarters	as in items 20 (i) and 21 (i)	20	21 (i)	13,045	The number of staff serjeants and serjeants is 48, of whom 36 per cent or 17 are to be provided with married quarters. Quarters are allowed for 27 serjeants in the ends of single men's barracks, and serjeants will also be accommodated in the officers' mess, the provost serjeant's, canteen serjeant's and caterer's quarters.	
	One block of 8 class B quarters	as in item	21 (i)	21 (i)	11,319		
	(a) Cook-houses—	as in item	21	(i) (a)			
	(b) Latrines—	see para.	28			Suitably placed for the 2 blocks.	133 B. I. modified.
	(ii) For a head-quarter wing. One block containing 1 class A, and 9 class B quarters	as in items 20 (i) and 21 (i)	20	21 (i)	14,323	The number of staff serjeants and serjeants is 28, of whom 36 per cent or 10 are to be provided with married quarters. The remainder are allowed for in 14 quarters at the end of barracks, and in the special quarters detailed against a full battalion.	
	(a) Cook-house—	as in item	21	(i) (a)			
	(b) Latrines—	see para.	28				133 B. I. modified.

Item No.	Buildings.	Length	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. Ft.		
100	QUARTERS FOR STAFF SERJEANTS AND SERJEANTS— <i>concid.</i> (iii) For a detached wing. One block of 7 class B quarters (a) Cook-house— (b) Latrine— ARMOURERS' SHOP. For a battalion or a wing Armourers' shop Forge room Water and wood store Drying room 101 BLACKSMITHS' FORGE AND WORKSHOP, VOLUNTARY. For a battalion or a wing. Forge 103 RECREATION GROUND 104 DRY EARTH STORE 105 FIRE ENGINE SHED 106 FIVES COURT 107 GYMNASIUM 108 INSTITUTE (i) For a battalion. Liquor bar portion— Privates' room Bar or issue room Beer store Corporals' room Serjeant's quarter Theatre (b) Latrine— Privy of 1 seat (c) Urinary— 2 compartments (ii) For the head-quarters and 6 companies of a battalion. Liquor bar portion— Privates' room Bar or issue room Beer store Corporals' room Serjeant's quarter Theatre Subsidiary buildings (iii) For a head-quarter wing. Liquor bar portion— Privates' room Bar or issue room Beer store Corporals' room Serjeant's quarter Theatre (b) Latrine (c) Urinary— 1 compartment	as in item as in item see para 30 24 10 10 23 see para see item see item see item 23 see para see item see item see item 50 10 19 24 as in item 83 4 6 37 10 19 14 as in item 70 as in item 23 10 16 12 as in item 44 as in item 6	21 21 28 24 9 10 10 22 or 24 51 31 28 29 30 22 24 16 24 16 24 16 22 24 16 5 7 24 16 24 16 24 16 22 24 16 24 16 24 16 22 24 16 24 16 24 16 22 24 16 24 16 7	10,083 (a) (i) (a) 28 16 16 10 10 900 51 31 430 7,050 900 7,290 5,250 40 48 48 6,180 5,480 5,480 40	The number of serjeants is 20, of whom 7 are to be provided with family quarters. The remainder will be accommodated in the 12 quarters at the end of barracks and 1 in the institute. <		

Item No.	Buildings	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
108	INSTITUTE— <i>condid.</i>	Ft.	Ft.	Ft.	Sq. ft.		
	(i) <i>For a detached wing.</i>						
	Liquor bar portion—						
	Privates' room	25	24	16	5,230	The authorized floor area, exclusive of verandah space taken up, is 1,728 sq. ft.	44 B. I. modified.
	Bar or issue room	10	24	16			
	Beer store	14	24	16			
	Corporals' room	12	24	16			
	Sergeant's quarter	as in item		22			
	(b) Latrine	as in (i)					
	(d) Urinary	as in (ii)					
	(e) <i>For a detachment of 2 companies.</i>						
	Liquor bar portion—						
	Privates' room	20	24	16	3,240	The authorised floor area, exclusive of verandah space taken up, is 930 sq. ft.	44 B. I. modified.
	Bar or issue room	20	12	16			
	Beer store						
	Corporals' room	20	10	16			
	(b) Latrine	as in (i)					
	(d) Urinary	as in (ii)					
103A	LAUNDRY STORE.						
	(i) <i>For a battalion.</i>						
	1 dirty clothing room	25	13	13½	918	.....	74 B. I.
	1 making up room	30	13	13½			
	(ii) <i>For less than a battalion, but not less than a company.</i>						
	1 dirty clothing room	18	13	13½	605	.....	74 B. I.
	1 making up room	20	13	13½			
109	MAGAZINE.						
	(i) <i>For a battalion.</i>						
	S A. ammunition room	16	16	16	480	See para. 47. This will usually be provided for in the central station magazine. If so, a small expense store to hold 60 boxes of ammunition will be provided in the lines.	
	(ii) <i>For a wing.</i>						
	S A. ammunition room	16	10	16	340		
110	ORDERLY AND COURT-MARTIAL ROOM.						
	(i) <i>For a battalion.</i>						
	Orderly room	24	20	16	}	Officer's room will only be given under special sanction.	45 B. I. modified.
	Court-martial room	36	20	16			
	Bath-room in verandah	9½	10	...			
	(d) Urinary—						
	1 compartment	6½	2	7	16	Not to be provided if a latrine or urinary exists near.	
	(ii) <i>For a wing.</i>						
	Orderly room	22	20	16	}	As against (i).	45 B. I. modified.
	Court-martial room	35	20	16			
	Bath-room in verandah	9½	10	...			
	(d) Urinary	as in (i)			16	See remarks against (i) (d).	
111	PARADE GROUND				laid down.		
112	PAY OFFICE.						
	(i) <i>For a battalion.</i>						
	1 room	24	23½	16	1,300	Should be given under the same roof as the orderly room.	
	(ii) <i>For a head-quarter wing.</i>						
	1 room	24	13½	16	1,030		47 B. I.
113	PRAYER ROOM	see item		32			

Item No.	Buildings.	Length.	Breadth.	Height.	Floor area, approximate	Remarks.	Type plan and series.
114	QUARTER GUARD AND DETENTION ROOMS— (i) <i>For a battalion.</i> Guard room for 18 men Guard detention room for 14 men Provost sergeant's quarter 10 barrack detention rooms, each (b) Latrine— 2 privies of 3 seats, each Covered passage for sentry (c) Lavatory— Room for 10 basins 4 private bath rooms, each (d) Urinary— 2 compartments (ii) <i>For a head-quarter wing.</i> Guard room for 12 men Guard detention room for 10 men Provost sergeant's quarter 6 barrack detention rooms, each (b) Latrine— 3 privies of 2 seats, each Covered passage for sentry (c) Lavatory— Room for 8 basins 2 private bath-rooms, each (d) Urinary (iii) <i>For a detached wing.</i> Guard room for 12 men Guard detention room for 8 men 4 barrack detention rooms, each Subsidiary buildings	Ft. 67½ 62½ as in item 13 8½ 10 15 6½ 6½ 45 37½ as in item 13 5½ 7 12 6½ as in (i) 45 80 13 as in (i)	Ft. 24 24 22 10 12 5 16 6 5 24 24 as in item 10 13 9 5 16 6 16 24 16 10 10 24 15 11 11 11 8½ 7 2½ 7 28	Ft. 18 18 22 18 9 9 9 9 7 16 16 22 18 9 9 9 9 16 			

Item No.	Buildings.	Length.	Breadth.	Height.	Floor area, approximate	Remarks.	Type plan and service.
116	QUARTERMASTER'S STORES—concl'd.	Ft.	Ft.	Ft.	Sq ft.		
	(iii) For a detached wing. As in (i) but one store-room instead of three				2,670	See remarks against (i).	
116	(d) Urinary	as	in	(i)	28	See remarks against (i) (d).	
	REGIMENTAL WORKSHOPS, VOLUNTARY.						
	(i) For a battalion.						
	Carpenter's shop	50	22	16	7,780		69 B. I.
	" store-room	41	12	9			
	Painter's shop	22	22	16			
	Tinsmith's shop	22	14	16			
	Shoemaker's shop	22	22	16			
	Bookbinder's shop	14	10½	16			
	Watchmaker's shop	14	10½	16			
	Printer's shop	25	22	16			
	2 water-rooms, each	8	8	9			
	(d) Urinary—						
	2 compartments	6½	5	7	48	Not to be provided if a latrine or urinary exists near.	133 B. I.
	(ii) For a head-quarter wing						
	Carpenter's shop	33½	22	16	5,890		69 B. I. modified.
	" store-room	41	8	9			
	Painter's shop	14½	22	16			
	Tinsmith's shop	9½	22	16			
	Shoemaker's shop	14½	22	16			
	Bookbinder's shop	9½	10½	16			
	Watchmaker's shop	9½	10½	16			
	Printer's shop	16½	22	16			
	2 water-rooms, each	8	8	9			
	(d) Urinary—						
	1 compartment	6½	2½	7	28	As against (i) (d).	133 B. I.
	(iii) For a detached wing.						
	Carpenter's shop	30	24	16	5,460		69 B. I. modified.
	Painter's shop	12	24	16			
	Tinsmith's shop	12	24	16			
	Shoemaker's shop	12½	24	16			
	Bookbinder's shop	12	24	16			
	Printer's shop	14	12	16			
	Water-room	10	24	16			
	(d) Urinary	as	in	(i)	28	As against (i) (d).	
117	RIVER RANGE	see	para	49			49 A to C B. I.
118	SCHOOL—						
	(i) For a battalion.						
	Class room for 120 men	92	24	16	7,630	See para. 41.	71 A B. I.
	Class room for 64 children	36	24	16			
	2 water-rooms, each	6	10	9½			
	Or with quarters for the schoolmaster and mistress attached				9,400	Subsidiary buildings for these quarters as laid down for class A sergeants.	
	(b) Latrine—						
	Privy for boys, 4 seats	11	10½	9	400		71 E. B. I.
	" " girls, 4 "	11	10½	9			
	Urinary for boys	4½	3½				
	Dry earth shed	4½	3½				
	(d) Urinary—						
	2 compartments	6½	5	7	48	For men.	133 B. I.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
118	SCHOOL—contd.	Ft.	Ft.	Ft.	Sq. ft.		
	(i) For a battalion with 1 or 2 companies detached.						
	Class room for 96 men	74	24	16	6,160	See remarks against (i).	71 B. B. I.
	Class room for 40 children	24	24	16			
	2 water-rooms, each	6	10	9½			
	Or with quarters for the schoolmaster and mistress attached				7,920		
	Subsidiary buildings	as	in	(i)			
	(iii) For a battalion with 3 companies detached or a head-quarter wing.						
	Class room for 80 men	66	24	16	5,660	See remarks against (i).	71 B. B. I.
	" " " 36 children	22	24	16			
	2 water-rooms, each	6	10	9½			
	Or with quarters for the schoolmaster and mistress attached				7,430		
	(b) Latrine—						
	Privy for boys, 3 seats	8½	10½	9	330		71 E. B. I.
	" " girls, 3 "	8½	10½	9			
	Urinary for boys	4½	3½				
	Dry earth shed	4½	3½				
	(d) Urinary	as	in	(i)	48	For men.	133 B. I.
	(iv) For a detached wing—						
	Class room for 64 men	54	24	16	8,450		71 C. B. I.
	" " for 36 children	22	24	16			
	2 water-rooms, each	6	10	9½			
	Subsidiary buildings	as	in	(iii)			
	(v) For 3 companies—						
	Class room for 48 men	40	24	16	3,080		71 C. B. I.
	" " " 30 children	22	24	16			
	2 water-rooms, each	6	10	9½			
	(b) Latrine—						
	Privy for boys, 2 seats	5½	10½	9	260		71 E. B. I.
	" " girls, 2 "	5½	10½	9			
	Urinary for boys	4½	3½				
	Dry earth shed	4½	3½				
	(d) Urinary—						
	1 compartment	6½	2½	7	28	For men.	133 B. I.
	(vi) For 2 companies—						
	Class room for 32 men	26	24	16	2,250		71 C. B. I.
	" " " 20 children	24	18	16			
	2 water-rooms, each	6	10	9½			
	Subsidiary buildings	as	in	(r)			
	(vii) For 1 company—						
	Class-room for 16 men	24	18	16	1,170		71 D. B. I.
	1 water-room	6	10	9½			
	(d) Urinary	as	in	(r)	28		

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
119	SERGEANTS' MESS.	Ft.	Ft.	Ft.	Sq. ft.		
	(i) <i>For a battalion.</i>						
	Mess-room	30	24	16	6,656	A 10' verandah in the clear all round, containing the beer store, caterer's quarter, pantry, and a lavatory 9½' x 12' near the ante-room.	67 B. I.
	Ante-room	30	24	16			
	Billiard room	30	24	16			
	Beer store	24	9½	9½			
	Caterer's room	21	9½	9½			
	Pantry	8½	9½	9½			
	(a) Cook-house—				820	With a 7' verandah in front, containing a fuel store 6½' x 4½'.	67 B. I.
	Kitchen	18	18	13			
	Scullery	13½	6	13			
	Cook's room	10	6	8			
	Meat store	6	6	8			
	(b) Latrine—				100		133 R. I. modified.
	Privy of 2 seats	10	6½	9			
	(c) Urinary—				23		133 B. I.
	1 compartment	6½	2½	7			
	(iii) <i>For a wing.</i>						
	Mess room	30	24	16	5,100	A 10' verandah in the clear all round, containing the beer store, caterer's room, pantry and a small lavatory near the ante-room.	67 B. I. modified.
	Ante-room	20	24	16			
	Billiard room	23	24	16			
	Beer store	24	9½	9½			
	Caterer's room	21	9½	9½			
	Pantry	8½	9½	9½			
	Subsidiary buildings	as in	in	(i)			
120	KAHARS' HUT.						
	<i>For a battalion or wing.</i>				360	To be built (near the quarter guard.	
	Hut for 4 kahars	20	12	10			
121	Walls	as	required.			See para. 60.	
	BRITISH INFANTRY IN THE HILLS.						
122	BARRACKS FOR SINGLE MAN AND FILE.						
	(c) <i>For a battalion.</i>						
	9 half-company huts with open verandahs, each containing—				6,640	The number of rank and file in a battalion is 956, of which band and drummers number 36, and married men 12, leaving 904 men to be accommodated in single men's barracks; this gives 114 men per company.	1 hutted camp.
	56 { 4 dormitories for 14 men, each	42	23	10			
	2 sergeants' quarters	as in item	23				
	7 half-company huts with open verandahs, each containing—						
	58 { 3 dormitories for 14 men, each	42	23	10	6,330	The band are to have a separate barrack, equal in size to a half-company barrack, in which case no special provision is necessary for a band practice room. Nine half-company huts (including one for the band) for 56 men and 8 half-company huts for 53 men are therefore required.	1 hutted camp.
	1 dormitory for 16 men	48	22	10			
	1 sergeant's quarter	as in item	22				
	1 half-company hut with open verandahs 53 men	as above			6,830		1 hutted camp.
	2 sergeants' quarters	as in item	22				

Item No.	Buildings.	Length.	Breadth.	Height.	Floor area, approximate.	Remarks.	Type plan and series.
122	BARRACKS FOR SINGLE RANK AND FILE— <i>consolid.</i>	Ft.	Ft.	Ft.	Sq. ft.		
	(a) 4 combined dining halls and kitchen, each containing—					One for 2 companies.	
	2 dining halls, each . . .	52	22	10	4,360	No verandahs	9 hutted camp.
	1 kitchen . . .	28	16	10		With 7' verandah in front, containing 2 fuel stores 6' x 3½' each.	
	2 sculleries, each . . .	12	8	9			
	2 meat stores, each . . .	10	8	8			
	2 cooks' rooms, each . . .	8	8	8			
	1 dining hall and kitchen containing—					For band barrack.	
	1 dining hall . . .	16½	22	10	1,285	No verandahs	9 hutted camp.
	1 kitchen . . .	14	16	10		With 7' verandah in front containing fuel store 6' x 3½'.	
	1 scullery . . .	12	8	9			
	1 cook's room . . .	8	8	8			
	1 meat store . . .	8	8	8			
	(b) Latrines 17, each containing—						
	Privy of 5 seats . . .	13	8½	7	260	One for each half-company.	132 B.I. modified.
	Sweeper's room . . .	8	5	7			
	Dry earth bin . . .	6	3				
	(c) Lavatories 17, each containing—						
	1 room for 10 basins . . .	13½	14	8	390	Do. do.	138 B.I. modified.
	2 private bath-rooms . . .	5½	4½	8			
	(d) Urinaries 17, each of 2 compartments . . .	6½	5	7	48	Do. do.	133 B.I.
	(ii) For a head-quarter wing.						
	5 half-company huts with open verandahs each to hold—					The number of rank and file in a head-quarter wing is 534, of whom band and drummers number 28 and married men 7, leaving 499 single men; this gives 124 men per company.	1 hutted camp.
	3 dormitories, for 16 men, each . . .	48	22	10	7,220		
	1 dormitory for 14 men . . .	42	22	10			
	2 sergeants' quarters . . .	as in item	22				
	3 half-company huts with one instead of two sergeants' quarters . . .	as above			6,710		1 hutted camp.
	Band barrack with open verandah—						
	3 dormitories for 16 men, each . . .	48	22	10	5,320	One for 2 companies	9 hutted camp.
	1 sergeant's quarter . . .	as in item	22				
	(a) 2 dining halls and kitchens . . .	...	...	...	...
	As in (i) (a) but dining halls 66½' long, each . . .	...	...	...	4,590		
	combined dining hall and kitchen to hold—	...	...	...	...	For band barrack.	
	1 room for 28 men . . .	13	22	10	1,195	No verandahs	9 hutted camp modified.
	1 kitchen . . .	14	16	10		With 7' verandah in front containing fuel store 6' x 3½'.	
	1 scullery . . .	10	8	9			
	1 cook's room . . .	8	8	8			
	1 meat store . . .	8	8	8			
	(b) Latrines, 9 . . .	as in (i)			260	One for each half-company and one for the band.	
	(c) Lavatories, 9 . . .	as in (i)			390		
	(d) Urinaries, 9 . . .	as in (i)			48		

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
131	INSTITUTE.	Ft.	Ft.	Ft.	Sq. ft.	For other portions of the institute see item 31.	...
	(i) For a battalion.						
	Liquor bar portion—					The authorized area, exclusive of bath-rooms and open verandahs, is 2,144 sq. ft.	1 hutted camp.
	Privates' room	45	20	10	4,820		
	Bar or issue room	10	20	10			
	Beer store	19	20	10			
	Corporals' room	20	20	10			
	Serjeant's quarter	as in item	22				
	Theatre	75	20	10	...	.....
	(a) Latrine—					.....	131 B. I.
	Privy of 1 seat	4	3		40	.....
	(b) Urinary—						133 B. I.
	2 compartments	6½	5	7	48		
	(ii) For the head-quarters and six companies of a battalion.						
	Liquor bar portion—					The authorized area, exclusive of bath-rooms and open verandahs, is 1,724 sq. ft.	1 hutted camp, modified.
	Privates' room	33	20	10	4,000		
	Bar or issue room	10	20	10			
	Beer store	18	20	10		.....
	Corporals' room	12	20	10			
	Serjeant's quarter	as in item	22				
	Theatre	63	20	10			
	Subsidiary buildings	as in (i)					
	(iii) For a head-quarter wing.						
	Liquor bar portion—					The authorized area, exclusive of bath-rooms and open verandahs, is 1,484 sq. ft.	1 hutted camp, modified.
	Privates' room	25	20	10	3,510		
	Bar or issue room	24	20	10			
	Beer store	12	20	10			
	Corporals' room	12	20	10			
	Serjeant's quarter	as in item	22				
	Theatre	41	20	10	...	.....
	(b) Latrine	as in (i)			...	.....
	(d) Urinary—						
	1 compartment	6½	2½	7	28	.....	133 B. I. modified.
	(iv) For a detached wing.						
	Liquor bar portion—					The authorized area, exclusive of bath rooms and open verandahs, is 1,404 sq. ft.	1 hutted camp.
	Privates' room	23	20	10	3,380		
	Bar or issue room	22	20	10			
	Beer store	12	20	10			
	Corporals' room	12	20	10			
	Serjeant's quarter	as in item	22				
	(b) Latrine	as in (i)			...	.....
	(d) Urinary	as in (ii)			...	.....
	(v) For a detachment of 2 companies.						
	Liquor bar portion—					The authorized area, exclusive of bath-rooms and open verandahs, is 698 sq. ft.	1 hutted camp.
	Privates' room	18	20	10	1,760		
	Bar and issue room	18	10	10			
	Beer store	18	10	10			
	Corporals' room	18	10	10			
	(b) Latrine—	as in (i)			...	.....
	(d) Urinary	as in (ii)			...	.....
131A	LAUNDRY STORE.						
	(i) For a battalion.						
	1 dirty clothing room	25	13	13½	918		
	1 making up room	30	13	13½		.....	74 B. I.
	(ii) For less than a battalion, but not less than a company.						
	1 dirty clothing room	15	13	13½	605		
	1 making up room	20	13	13½		.....	74 B. I.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. ft.		
132	MAGAZINE. (i) For a battalion S. A. ammunition room.	18	16	16	480	See para 47. This will usually be provided for in the central station magazine. If so, a small expense store to hold 60 boxes of ammunition will be provided in the line.	
	(ii) For a wing. S. A. ammunition room.	18	10	16	340		
133	ORDERLY AND COURT-MARTIAL ROOMS— (i) For a battalion. Orderly room. Court-martial room Pay office 2 bath-rooms, each (d) Urinary— 1 compartment.	18 24 18 6	20 20 20 7	10 10 10 7	2,230	Hut type; 9' verandah in front.	1 hutted camp note.
	(ii) For a head-quarter wing Orderly room Court-martial room Pay office 2 bath-rooms, each (d) Urinary	16 24 12 6	20 20 20 7	10 10 10 9		See remarks against (i)	1 hutted camp, modified.
	(iii) For a detached wing. As in (i) but without the pay office (d) Urinary	as in	(i)	(d)	23	See remarks against (i) (d).	
					1,560	See remarks against (i).	1 hutted camp, modified.
					23	See remarks against (i) (d).	
134	PARADE GROUND	no	size	laid	down.		
135	PRAYER ROOM	see	item	32			
136	QUARTER GUARD AND DETENTION ROOMS. (i) For a battalion. Guard room for 18 men Guard detention room for 14 men Provost sergeant's quarter 10 barrack detention rooms, each	54 42 as in	20 20 item	10 10 23	3,790	Hut type; 9' verandah in front.	64 A. to D B. I. modified.
	(b) Latrines— 2 privies each of 3 seats, each Covered passage for sentry	8½ 9½	8½ 4½	7 7		Hut type is not suitable. Verandah in front of barrack detention rooms to be 7½' wide. If barrack detention rooms are used in winter, warming apparatus is to be provided.	64 B. B. I. modified.
	(c) Lavatory— 1 room for 10 basins 2 private bath-rooms	13½ 5½	14 4½	8 8	300		64 B. B. I. modified.
	(d) Urinary— 2 compartments	6½	5	7			
	(ii) For a head-quarter wing. Guard room for 12 men Guard detention room for 10 men Provost sergeant's quarter 6 barrack detention rooms, each	36 30 as in	20 20 item	10 10 23	2,910	See remarks against (i).	133 B. I.
						See remarks against (i).	64 A. to D B. I. modified.
					1,400	See remarks against (i).	64 B. B. I. modified.

Item No.	Buildings.	Length	Breadth.	Height	Plot area, approximate	Remarks.	Type plan and service.
136	QUARTER GUARD AND DETENTION ROOMS— concd.	Ft.	Ft.	Ft.	Sq. ft.		
	(i) For a head-quarter wing—concd.						
	(b) Latrine— 2 privies each of 2 seats, each	5½	8½	7	210		64 B. B. I. modified
	Covered passage for sentry	6½	4½	7			
	(c) Lavatory— Room for 8 basins	11	14	8	320		64 B. B. I. modified.
	2 private bath-rooms, each	5½	4½	8			
	(d) Urinary	as in	(i)	(d)	48		
	(iii) For a detached wing						
	Guard room for 12 men	36	20	10	2,110	See remarks against (i).	64 A. to D. B. I. modified.
	Guard detention rooms for 8 men	24	20	10			
	4 barrack detention rooms, each	10	10	13	1,010	See remarks against (i).	
	Subsidiary buildings	as in	(i)	(i)			
137	QUARTERMASTER'S STORES						
	(i) For a battalion.						
	Store-room	42	20	10	2,900	Hut type, no verandahs.	
	Store-room	36	20	10			
	Quartermaster's office	10	20	10			
	Tailor's workshop	14	20	10			
	Dry store	12	20	10			
	(d) Urinary— 1 compartment	6½	2½	7	28	Not to be given if a latrine or urinary exists near.	133 B. I.
	(ii) For a head-quarter wing.						
	Store-room	50	20	10	2,210	See remarks against (i).	
	Quartermaster's office	10	20	10			
	Tailor's workshop	14	20	10			
	Dry store room	12	20	10			
	(d) Urinary	as in	(i)	(i)	28	See remarks against (i) (d).	
	(iii) For a detached wing						
	Store-room	35	20	10	1,020	See remarks against (i).	
	Quartermaster's office	10	20	10			
	Tailor's workshop	14	20	10			
	Dry store-room	12	20	10			
	(d) Urinary	as in	(i)	(i)	28	See remarks against (i) (d).	
138	REGIMENTAL WORKSHOPS, VOLUNTARY.						
	(i) For a battalion						
	Carpenter's shop	37	20	10	3,550	Hut type, 6' verandah in front.	
	Painter's	16	20	10			
	Tinsmith's	10	20	10			
	Shoemaker's	16	20	10			
	Bookbinder's	12	20	10			
	Watchmaker's	12	20	10			
	Printer's	18	20	10			
	(d) Urinary— 2 compartments	6½	5	7	48	Not to be given if a latrine or urinary exists near.	133 B. I.
	(ii) For a wing.						
	Carpenter's shop	24	20	10	2,630	See remarks against (i).	
	Painter's	10	20	10			
	Tinsmith's	10	20	10			
	Shoemaker's	10	20	10			
	Bookbinder's	12	20	10			
	Watchmaker's	12	20	10			
	Printer's	12	20	10			
	(d) Urinary— 1 compartment	6½	2½	7	28	See remarks against (i) (d).	133 B. I.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
		Ft. sec	Ft. para	Ft. 49	Sq. ft.		
139	RIFLE RANGE . . .						
140	SCHOOL.						
	(i) For a battalion.					See para. 41.	
	Class rooms for 120 men.	60	20	10	5,280	For the actual accommodation authorized, which is the same in the hills as for the plains, see item 118. See also item 125 for the accommodation allowed for the school-master and school-mistress. The sizes here given are suitable to the hill type; a 9' verandah to be given in front containing a fuel store 6' x 2½'.	71 E. B. 1 modified.
	Class room for 64 children . . .	54	20	10			
	2 water-rooms, each . . .	42	20	10			
	2 water-rooms, each . . .	71	8	9			
	(b) Latrine—						
	Privy for boys, 4 seats . . .	10½	3½	7	300		
	" " girls, 4 " . . .	10½	3½	7			
	Urinary for boys . . .	4½	3½	...			
	Dry earth shed . . .	4½	3½	...			
	(c) Urinary—						
	2 compartments . . .	8	5	7	48	For men.	133 B. I.
	(ii) For a head-quarter wing.						
	Class room for 80 men . . .	42	20	10	3,720	See remarks against (i).	
	Class room for 36 children . . .	36	20	10			
	2 water-rooms, each . . .	30	20	10			
	2 water-rooms, each . . .	71	8	9			
	(b) Latrine—						
	Privy for boys, 2 seats . . .	8	3½	7	230		
	" " girls, 3 " . . .	8	3½	7			
	Urinary for boys . . .	4½	3½	...			
	Dry earth shed . . .	4½	3½	...			
	(d) Urinary . . .	as	in (c)	(d)	48	For men.	
	(iii) For a detached wing.						
	Class room for 64 men . . .	60	20	10	3,090	See remarks against (i).	
	" " " 36 children . . .	30	20	10			
	2 water-rooms, each . . .	71	8	9			
	Subsidiary buildings . . .	as	in	(ii)			
141	SERGEANTS' MESS.						
	(i) For a battalion.						
	Mess-room . . .	40	20	10	4,010	Hut type; 9' verandah in front containing the pantries and a small lavatory near the ante-room	1 hutted camp.
	Ante-room . . .	28	20	10			
	Billiard room . . .	24	20	10			
	Caterer's room . . .	10	20	10			
	Beer store . . .	10	20	10			
	Pantry . . .	71	10	9			
	(a) Cook-house—						
	Kitchen . . .	20	12	10	657	7' verandah in front containing a fuel store 3½' x 6'.	67 B. I. modified.
	Scullery . . .	6	12	10			
	Cook's room . . .	10	6	10			
	(b) Latrine—						
	Privy of 2 seats . . .	5½	8'	7	100		132 U. I. modified.
	(c) Urinary—						133 B. I.
	1 compartment . . .	6½	2½	7	23		
	(ii) For a wing.						
	Mess-room . . .	24	20	10	3,482	See remarks against (i).	1 hutted camp.
	Ante-room . . .	28	20	10			
	Billiard room . . .	24	20	10			
	Caterer's room . . .	10	20	10			
	Beer store . . .	10	20	10			
	Pantry . . .	71	10	9			
	Subsidiary buildings . . .	as	in	(c)			
142	KAHARS' HUT						
	For battalion or wing.						
	Hut for 4 kahars . . .	20	10	8	320	To be built near the quarter-guard.	

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks	Type plan and series
149	FOLLOWERS' HOSPITALS.						
	(i) <i>In the plains.</i>					Only authorized, where absolutely necessary, for the A. H. corps and the Indian establishment attached to British troops on the following scale:—	
	Block for 10 men—					Patients.	
	2 dormitories for 14 men, each	42	20	13	5,490	Regiment of cavalry 39	33 I. I.
	2 small wards, each	12	12	11		A battery, R. H. A., 15	
	2 bath-rooms	12	12	11		2 batteries or companies, R. F. A. or R. G. A. 15	
	Office	14	14	11		British mountain battery 6	
	Dispensary	14	14	11		Battalion of infantry 15	
	Hospital store	8	8	8			
	Medical "	8	8	8			
	(a) Cook-house	21	14		490	To be divided into 2 compartments, 1 for Mahomedans and 1 for Hindus, with doors at opposite ends.	
	(b) Latrine of 5 seats	15	6		160		
	(c) Washing platform	15 in	10 ft	2-9		A raised pucca floor should be given with one drain for urine and a second drain for ablution water, running into iron receptacles, covered with dammer, outside the building, or a corrugated iron larnie for Indians may be given.	
	(ii) <i>In the hills.</i>						
	Block for 30 men—						
	2 wards for 14 men, each	42	20	15	4,190		34 I. I.
	2 small wards	18	10	10			
	Office	18	10	10			
	Dispensary	9	10	10			
	Ditto	5	10	10			
	Store-room	9	5	11			
	2 bath-rooms each	9	8	11			
	Subsidiary buildings	as	in	(i)			
150	QUARTERS FOR LADY NURSES.						
	(i) <i>In the plains.</i>					The distribution of lady nurses by Divisions is given in A. F. Medical.	
	Block of 4 quarters—						
	4 combined sitting and bed rooms, each with a floor area of 336 sq. ft.					A bath room 6' x 8' and a small store room will be provided for each quarter in the verandah.	
	Common dining room	24	15		5,510	The common dining room and sitting room are calculated at 10 sq. ft. for each lady nurse in the station.	
	" sitting "	24	15				
	Pantry in verandah	12	8				
	(a) Cook-house—						
	Kitchen	10	12	12	310	For the use of all the lady nurses at one station. To be provided with fittings.	
	Cooking place	5	12	21			
	(f) Servants' quarters—						
	Block of 8 quarters, each	10	8	10	910	2 quarters to each lady.	
	(g) Dressing-rooms—						
	Block of 4 each (one sitting and one bed)	12	8	11	100	1 coach-house to each lady.	
	(h) Stables—						
	Block of 6 stalls, each	12	8	11	100	1 stall to each quarter.	

Item No.	Buildings.	Length	Breadth.	Height.	Plinth area, approximate.	Remarks	Type plan and series.
		Ft	Ft	Ft	Sq ft.		
149	QUARTERS FOR LADY NURSES— <i>conold</i> (a) <i>In the hills.</i> Block of 4 quarters— 4 rooms each 4 bath-rooms in verandah, each Common dining room " sitting " Store-room Pantry-room Subsidiary buildings	16 8 16 16 13 13 as	13 6 16½ 16½ 10 8½ in	16 16 16 16 10 8½ (c)	3,950	No scale is laid down for the hills, but the one quoted here gives the areas sanctioned at Quetta and should be sufficient. Coach-houses will, however, rarely be required in the hills. The height of the servants' quarters can be reduced to 8 ft	
150	QUARTERS FOR COMMISSIONED AND WARRANT OFFICERS OF THE I. S. M. D.	For size of quarters authorized see items	8	10	10	The numbers and ranks of the medical subordinates to be provided with quarters in each hospital will be decided by the A. D. M. S. of the Division or Independent Brigade. See remark against item 10.	
151	QUARTERS FOR SUB-ASSISTANT SURGEONS. <i>In the plains or hills</i> (a) <i>Senior sub-assistant surgeons and sub-assistant surgeons, 1st grade.</i>					A sub-assistant surgeon is authorized for each regiment of cavalry and to each battery of artillery (horse, field) howitzer, heavy or mountain also for each departmental followers' hospital	
	Room Bath-room Verandah Enclosure wall of court-yard Shed for cooking-pots, etc (b) Latrine	16 12 8½ 29½ 46 7½ 6	12 1 6 6 11 5 5	12 12 8½ 8½ 8 8½ 8½	760 70 120	A portion of the verandah of each quarter is to be divided off, to form a cooking place at one end. In the hills the height of the main rooms will be reduced to 10' and if the site will not admit of it, the court-yard may be omitted. An open court-yard 29½ x 17½ containing the latrine and shed for cooking-pots, water, etc	11 I. I.
	(c) <i>Sub-assistant surgeons, 2nd and 3rd grades—</i> Room Bath-room Verandah Enclosure wall of court-yard (a) Shed for cooking pots, etc (b) Latrine	16 8 16 61½ 7½ 6	12 6 6 11 5 5	12 8½ 8½ 8 8½ 8½	480 90 120	See remarks against (c). An open court-yard 32' x 16' containing the latrine and shed for cooking-pots, water, etc	12 I. I.
152	QUARTERS FOR HOSPITAL SERVENTS As in item 174, in approximate blocks for married and single men, the number of married quarters being regulated by the scale of normal establishment authorized in A. R. I., Vol. II.					Quarters to be provided for— (i) <i>A. H. Corps</i> (ii) <i>Police Division</i> , (iii) <i>All</i> (except <i>Police Division</i>), other <i>Mhow Division</i> stations (excluding <i>Jhansi</i> and <i>Jubbulpore</i> <i>Divs.</i>), <i>Karachi</i> and <i>Aden</i> <i>Divs.</i> Ward servants, 1 per 6 beds 1 per 10 beds Cooks, 1 per 25 beds Water carriers, 1 per 25 beds.	

Item No.	Buildings.	Length.	Breadth	Height.	Plinth area, approximate	Remarks.	Type plan and series.
152	QUARTERS FOR HOSPITAL SERVANTS— <i>concl'd.</i>	Ft	Ft	Ft	Sq ft.	Dhobies, 1 per 20 beds Ward sweepers, 1 per 20 beds with 10 per cent reserve additional. <i>Other classes.</i> Peons H. S. K. assistants } as laid down in Baidars } A. T. Medical. Sweepers } Kabars— Actual number attached and requiring accommodation in the hospital lines (i) Female sweepers must be accommodated in the married quarters. (ii) The accommodation for single men should be divided into rooms of various sizes to suit the different castes.	
153	QUARTERS FOR HOSPITAL STORE-KEEPERS. (i) <i>In the plains or hills.</i> Samans for sub assistant surgeons, 2nd and 3rd grades (ii) <i>In stations under Bombay Government</i> 2 main rooms, each 2 verandah rooms, each	see item 151	151	(ii)	1,070	To be built within the hospital enclosure. No cook-house to be provided, as the store-keeper can make his own <i>chulas</i> in the verandah. Latrines will be provided from cantonment funds. Compensation is not admissible if the zenana compound is omitted. For number of store-keepers see A. T. Medical.	
154	ADMINISTRATIVE OFFICES. <i>In the plains or hills</i> Block for a hospital of 124 beds Room for assistant surgeon on duty Surgery and dispensary Medical store Receiving room Office Store-keeper's office	144	20	16	1,240	In the hills and hutted camps the height of the rooms will be reduced to 10 feet. Shelves should be given in the offices, surgery, and medical store. For very large hospitals it may be necessary to provide two administrative blocks.	6 Hospl.
155	ENCLOSURE WALL OR FENCE. (i) <i>For the hospital.</i> (ii) <i>For the lady nurses' quarters</i>					Should be bricked wall, 2½' to 3' high or a fence 4½' high, the latter is always to be given if the hospital wards are within 100' of it. Wire fencing is usually given. An enclosure is not generally necessary in the hills.	
156	GUARD-ROOM (i) <i>In the plains.</i> Room 10 verandah on 3 sides A lavatory should be given by enclosing a portion of the verandah (ii) <i>In the hills.</i> Room 9 verandah in front	30	24	10	2,270	For 1 corporal and 6 privates. A guard-room should only be constructed if considered necessary by the local authorities: a separate corporal's room is unnecessary.	42 Hospl.
		24	20	10	850	See remarks against (i).	42 Hospl. modified.

Item No.	Buildings	Length.	Breadth.	Height.	Floor area, approximate.	Remarks.	Type plan and service.
157	LAUNDRY. <i>In the plains or hills.</i> Ironing, sorting and store room Steaming room Soiled linen store.	30 16½ 9½	15 15 15	11½ 11½ 9½	1,415	With 10' verandah on one side This size is suitable for a hospital of 100 to 124 beds For smaller hospitals the steaming room and store should be reduced in size For larger hospitals the ironing room, as well as the steaming and store rooms, should be increased in size.	
158	MORTUARY. (i) <i>In the plains.</i> Room (ii) <i>In the hills.</i> Room	18 18	12 12	16 12	330 330	Floor to be such as to admit of washing without absorption of the water and not liable to fracture or cracks, with a drain leading to a receptacle above ground level outside A sink 3' x 2' x 3' with a trough 9" deep, lined with lead to be placed opposite a window, water to be laid on over the sink. Cupboards or shelves to be built into the walls A towel roller, pegs for clothes, and bracket with a hook for suspending a spring balance, should be provided as fixture. The scale of ambulances is 1 for every 50 beds or fraction thereof, and 1 compartment for a hearse in addition for each station. The supply of boilers is authorized for each station or section hospital of under 100 beds 15 cubic feet 100 to 150 " 27 " over 150 " 40 " These boilers to be bedded in lime masonry The authorized area exclusive of a small room for oil and lamps and another for unserviceable stores, is:—for 120 beds or under, at 18 sq. ft. per bed, but not to exceed 1,800 sq. ft.; for over 120 and up to 250 beds 15 sq. ft. per bed, but not to exceed 3,000 sq. ft.; for over 250 beds 12 sq. ft. per bed Fixed cupboards or shelves, preferably of iron or stone, should be given in the walls of these store-rooms, the lowest shelf being 6' above the floor Windows should be barred To be built in every hospital compound Where the hospitals are together on one site, one store will suffice Where the hospitals are situated apart from one another, one store for each should be provided The cost to be kept as low as possible	7 Hospl.
159	SHED FOR AMBULANCE CARS AND HEARSES. (i) <i>In the plains.</i> 4 compartments each (ii) <i>In the hills.</i> Not usually required	15	11	13 or 14½	940		6 Hospl.
160	BOILER FOR DISINFECTING CLOTHING AND BEDDING. <i>In the plains or hills.</i>						
161	STORE-KITCHEN'S STORE <i>In the plains or hills</i> For a hospital of 124 beds— Bedding store Miscellaneous store Unserviceable stores Oil and lamp store 10 verandah on one side A bin for coir to be given in one corner.	57½ 20 10 10	24 24 8 8	11 or 10 8	2,830		5 & 5A Hospl modified
162	STORE FOR BURNING DEJECTA <i>In the plains or hills</i>						16 Hospl

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
163	WELLS OR WATER-SUPPLY.	Ft.	Ft.	Ft.	Sq. ft.		
164	WASHING PLATFORMS FOR HOSPITAL FOLLOWERS	6	4	...	...	According to local conditions. To be provided where a piped water supply has been installed. Where more than one tap is provided, the dimensions should be proportionately increased.	31
	INDIAN TROOPS						
	Plan of lines—						
	(i) For Indian cavalry.						
	(ii) For Indian infantry.						94 I. I.
171	QUARTERS FOR INDIAN OFFICERS—						
	(i) A regiment of cavalry—						
	(a) For Risaldar Major, Risaldars and Risaldars:—						
	8 detached quarters, each containing—						
	2 rooms, each	17	12	13½	918	The cookhouse, bathing place, latrine and porch to be provided in the courtyard of each quarter, which is 35½' × 32'.	93 I. I. modified,
	8' verandah in front	85½	8	9½			
	Cookhouse	6	6	8	74		
	Covered bathing place	4	4	7½	30		
	Latrine	6	5	7½	68		
	Covered porch	12	8	9½	165		
	(b) For Jemadars:—						
	9 detached quarters, each containing:—						
	2 rooms, each	15	10	13½	739	See remarks against (a). The courtyard in this case will be 31½' × 32'.	93 I. I.
	8' verandah in front	31½	8	9½			
	Cookhouse	6	6	8	74		
	Covered bathing place	4	4	7½	30		
	Latrine	6	5	7½	68		
	Covered porch	12	8	9½	165		
	(ii) A mountain battery in the plains						
	3 detached quarters, each containing:—						
	2 rooms, each	15	10	13½	739	See remarks against (i) (b).	93 I. I.
	8' verandah in front	31½	8	9½			
	Cookhouse	6	6	8	74		
	Covered bathing place	4	4	7½	30		
	Latrine	6	5	7½	68		
	Covered porch	12	8	9½	165		
	Stables—						
	Block of 3 stalls, each	12	8	9	430		
	(iii) A mountain battery in the hills.						
	Same as for the plains.						
	(iv) A battalion in the plains.						
	16 detached quarters, each containing:—						
	2 rooms, each	15	10	13½	739	One for each Indian officer. The height of the quarters to be reduced to 9' and the court-yards may have to be omitted for want of space.	93 I. I. modified.
	8' verandah in front	31½	8	9½			
	Cookhouse	6	6	8	74		
	Covered bathing place	4	4	7½	30		
	Latrine	6	5	7½	68		
	Covered porch	12	8	9½	165		
	See remarks against (i) (b).						93 I. I.

India Army Regulations—continued.

Oct. Appx.

Appendix F—

I. A. O.—1919

Case No. 9370,

(Q. M. G. 3-A.)

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area approxi- mate.	Remarks	Type plan and series.
171	QUARTERS FOR INDIAN OFFICERS. (vi) <i>A Mule Corps in the plains</i> (vii) <i>A Mule Corps in the hills</i>	As	in	item	171 (iv) 171 (v)	To be built for the num- ber authorised for the unit.	93-I. I.
172	Quarters for mar- ried Non-Com- missioned Officers and men— (vi) <i>A Mule Corps in the plains.</i> For superior per- sonnel For other married ranks	As	in	item	172 (s) 172 (iv)		
173	(viii) <i>A Mule Corps in the hills</i> Barracks for single men— SINGLEMEN'S BAR- RACKS (vi) <i>A Mule Corps in the plains</i> } (a) Cooking sheds (b) Latrines (c) Bathing places (vii) <i>A Mule Corps in the hills</i> Subsidiary accom- modation	As	in	item	172 (v) 173 (iv) 173 (v) 173 (v) 173 (v) 173 (v) 173 (v)	Authorised for Kot Daffa- dars, Quartermaster Daffadars and Veterinary Assistants (other than those graded as Indian Officers). For 10 per cent. of strength. Civilian clerks should not be provided with accom- modation at Government expense. For 10 per cent. of strength. See remarks against (vi) To be built for the number authorised for the unit.	92-I. I. 92-I. I. 91-I. I. 92-I. I. 91-I. I. modified.

India Army Regulations—continued.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area approximate.	Remarks.	Type plan and series.
174 -A.	FOLLOWERS' QUARTERS. <i>A Mule Corps</i>	Ft.	Ft.	Ft.	Sq. ft.		
		As	in	item	174		
180	FORGE. (ii) <i>A Mule Corps</i> . Forge Store 2 Shoeing sheds each (iii) <i>A Mule Corps</i> detachment. Forge store Shoeing shed	20 8 33	20 20 9	10 10 9	... ... .	Stocks to be provided on the scale of one per shed. Stocks to be provided on the scale of one per shed.	S6-I. M. B. modified. S6-I. M. B. modified.
182	BROODS STORES (i) <i>A Mule Corps</i> or detachment	At	1 s.	ft. per animal		Minimum 1 store 10' x 10' x 10' per troop or less	
186	OFFICE. (ii) <i>A Mule Corps</i> . 3 rooms, each (iii) <i>A Mule Corps</i> detachment Officers' room Clerks' room	11	16	16		With a verandah 8' wide in front and back containing a record room 8' in length and a bath room 7' in length. No rent will be charged for office and orderly rooms. To be provided only in case of detached subdivision or half corps. Minimum 1 officer. Minimum 2 clerks. See remarks against (ii)	
190	QUARTER GUARD (vii) <i>A Mule Corps</i> . Guard room Cells Quarter masters stores (viii) <i>A Mule Corps</i> detachment. Guard room Cell Quarter masters' stores	As in item 190 (ii)				Verandah in front 8' wide. 2 s. ft. per man. 13 s. ft. per man. Minimum for 1 Non-Commissioned Officer and 3 men. Verandah in front 8' wide. 2 s. ft. per man.	2-I. I. modified. 2-I. I. modified.

India Army Regulations—continued.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area approximate.	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. ft.		
190 -A.	RATION AND GRAIN STORES.						
	(a) Ration stores .	As in para 74-A At 3 s. ft per animal.				10' verandah in front To be built in one block.	
	(b) Grain stores .						
196	STANDINGS.						
	(iv) <i>A Mule Corps</i> Standings each .	12	7	..	..	Mangers to be provided	
197	VETERINARY HOSPITAL.						
	(iii) <i>A Mule Corps</i> Pharmacy . . .	12	10	12	..	Accommodation in covered standings should be provided for 5 per cent of strength less animals accommodated in loose boxes and slinging rooms. A verandah, 8½' clear on S. and W. sides of Pharmacy and store if exposed. In the hills the height should be 10'	108-I. C. modified.
	Store . . .	12	10	12	..		
	2 Slinging rooms each . . .	12	8	13	..		
	Loose boxes for 1 per cent. of strength, each .	12	8	13	..		
	Covered standings each . . .	12	7	13	..		
	Central passage 4' clear						
	Isolation block— 1 Loose box .	12	8	13	..	In the hills the height should be 10'.	
	(iv) <i>A Mule Corps</i> detachment Combined Pharmacy and store . . .	12	10	12	..	See remarks against (iii).	108-I. C. modified
	1 Slinging room .	12	8	13	..		
	Covered standings each . . .	12	7	13	..		
	Central passage 4' clear.						
	Isolation block— 1 Loose box .	12	8	13	..	In the hills the height should be 10'. At 60 s. ft. in plains and 50 s. ft. in hills for every authorised artificer Minimum for each shop 10' x 10' x 12'. Verandah 8' in front.	
198 -A.	WORKSHOPS.						
	(iii) <i>A Mule Corps</i> or detachment. Carpenters shop. Saddlers " Blacksmiths "						

A. H. BINGLEY, Major-General,
Secretary to the Government of India.

Item No.	Buildings	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks	Type plan and series
171	QUARTERS FOR INDIAN OFFICERS— <i>conold.</i>	Ft.	Ft.	Ft.	Sq ft		
	(v) <i>A battalion in the hills</i> Same as for the plains—					See remarks against (iii)	93 I. I.
172	QUARTERS FOR MARRIED N. C. OS AND MEN—						
	(i) <i>A regiment of cavalry.</i>					The authorized number of married men is 60	
	(a) 3 blocks each of 8 quarters.	...	...	...	2,911	The detached quarter is for the sutri and should be provided near the veterinary hospital	92 I I modified
	5 blocks each of 7 quarters.	...	...	...	2,552		
	1 block of 1 quarter	...	...	...	393		
	Each quarter containing:—						
	1 room	15	10	13½	} 393	5' of the verandah will be enclosed as a cooking place	
	8' verandah in front	15	8	9½		The bathing place will be given in the courtyard which is 15' x 12½'	
	Open bathing place	4	4	4		23	
	(b) Latrines for women—					Separate latrines are not to be given for each quarter.	
	Scale of seats at 8 per cent of strength.						
	(ii) <i>A mountain battery in the plains</i>					The authorized number of married men is 50	
	(a) 3 blocks, each containing 10 quarters, each:—					5' of the verandah to be enclosed as a cooking place	
	1 room	12	12	13½	} 3,276	A courtyard 12' x 16' is allowed for each quarter with bathing place in it	
	8' verandah in front	12	8	9½			
	Open bathing place	4	4	4		230	
	(b) Latrines for women					See remarks against (i) (b).	
	(iii) <i>A mountain battery in the hills.</i>						
	(a) 3 blocks, each containing 10 quarters, each:—						
	1 room	10	10	12	} 2,000	See remarks against (ii) If the site admits a courtyard 12' x 10' should be given with bathing place 4' x 4' in it	92 I I modified
	Verandah	10	5	8½			
	Bathing place	4	4	4		230	
	(b) Latrines for women					See remarks against (i), (b)	
	(iv) <i>A battalion in the plains</i>						
	(a) 4 blocks, each of 20 quarters, each:—					See remarks against (ii) Accommodation is provided for 60 married men. In the case of Gurkha battalions and of Sikh battalions accommodation is provided for 240 families the accommodation for single men being reduced proportionately	92 I I
	1 room	12	12	13½	} 6,528	Courtyards are not to be provided in the case of quarters for married men of Gurkha regiments.	
	8' verandah in front	12	8	9½			
	Open bathing place	4	4	4		460	

Item No.	Buildings.	Length.	Breadth	Height.	Floor area, approximate	Remarks.	Type plan and series.
172	QUARTERS FOR MARRIED N. C. OS. AND MEN— <i>concd.</i>	Ft.	Ft.	Ft.	Sq ft		
	(b) Latrines for women	"	"	"	"	See remarks against (i) (b).	
	(c) <i>A battalion in the hills.</i>						
	(a) 8 blocks, each of 10 quarters, each—						
	1 room	10	10	12	2,060	See remarks against (iii) and (iv).	92 I. I. modified.
	Verandah	10	5	8			
	Bathing place	4	4	4			
	(b) Latrines for women	"	"	"	"	See remarks against (i) (b).	
173	BARRACKS FOR SINGLE MEN.						
	(i) <i>A regiment of cavalry.</i>						
	8 half squadron barracks.					Each room to have an equipment store, not less than 4' x 4' for each jori at the end of the room. Stores will be arranged back to back everywhere.	80 I.C.
	For each squadron—						
	1 barrack containing—						
	8 rooms, each for 8 men, each	21	20	13½	10,136		
	2 rooms, each for 10 men, each	80	20	13½			
	8' verandah on both sides						
	1 barrack, containing—						
	7 rooms, each for 8 men, each	24	20	13½	10,380		
	1 room for 10 men exclusive of equipment stores	30	20	13½			
	8' verandah on both sides						
	(a) Cooking sheds—						
	8 sheds each	30½	10	9	435	A portion 5' x 5' in each shed to be enclosed as fuel store. A movable type of latrine is to be used, except in places like forts where this cannot be done; in such cases a Hoxbury or such similar pattern may be used.	92 I.I. modified.
	(b) Latrines—						
	4 of 10 seats each.						
	(ii) <i>A mountain battery in the plains.</i>						
	3 barracks for gunners each for—						
	2 N. C. Os each	12	9½	13½	9,656	This accommodation is calculated on the strength of a 10-pr gun battery, allowing for 30 married N. C. Os. and men. Ends of verandahs should be left open as men will sleep in them during hot weather. A store room 12' x 8' to be given in the verandah of each barrack. In the case of barracks having only one N. C. Os. quarter, the store room should be provided under the main roof.	91 I.I. modified.
	36 men, 2 rooms each.	54	20	13½			
	8' verandah front and back	126	8	8½			
	3 barracks for drivers—						
	2 each for—						
	1 N. C. O.	12	9½	13½	9,661		
	36 men { 2 rooms each	54	20	13½			
	1 room	63	20	13½			
	8' verandah, in front	163	8	8½	9,105		
	" back	190	8	8½			
	1 barrack for—						
	1 N. C. O.	12	9½	13½	9,105		
	60 men, 3 rooms each	60	20	13½			
	Verandah, front	190	8	8½			
	" back	186	8	8½			

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.	
173	BARRACKS FOR SINGLE MEN— <i>cond.</i>	Ft.	Ft.	Ft.	Sq. ft.			
	(a) Cooking sheds for gunners—							
	3 sheds, each . . .	34	10	9	481	A portion 5' x 5' in each shed to be enclosed as fuel store.	92 I. I. modified	
	for drivers—							
	2 sheds, each . . .	53	10	9	728			
	1 shed . . .	55	10	9	754			
	(b) Latrines—							
	3 of 8 seats each . . .	...	...	.	...	See remarks against (i) (b).	
	(iii) A mountain battery in the hills.							
	3 barracks for gunners, each for—							
	2 N. C. Os, each . . .	10	8	12	3,480			
	36 men, 2 rooms, each	45	20	12				
	Verandah, front and back . . .	105	5	8				
	2 barracks for drivers, 2 each for—							
	1 N. C. O. . . .	10	8	12	5,170	See remarks against (ii).	92 I. I. <i>cond.</i>	
	58 men { 2 rooms each . . .	50	20	12				
	1 room . . .	45	20	12				
	Verandah, front . . .	159	5	8	5,330			
	back . . .	149	5	8				
	1 barrack for—							
	1 N. C. O. . . .	10	8	12				
	60 men, 3 rooms each . . .	50	20	12				
	Verandah, front . . .	164	5	8				
	back . . .	153	5	8				
	Subsidiary buildings . . .	as	in	(iv)				
	(iv) A battalion in the plains							
	(a) 16 half company barracks, each for—							
	2 N. C. Os, each . . .	12	9	13	6,732	Each block accommodates 2 N. C. Os and 48 men, total 32 N. C. Os and 768 men. A store-room should be provided in the verandah.	91 I. I.	
	48 men, 4 rooms, each . . .	30	20	13				
	9' verandah in front . . .	163	9	8				
	(b) Band barracks for—							
	1 N. C. O. . . .	12	9	13	3,671	When a verandah at the back is also necessary, the verandahs will be 8' wide. The store room should be under the main roof.	91 I. I. modified	
	16 men, 2 rooms, each . . .	36	20	13				
	Store-room . . .	12	9	13				
	9' verandah in front . . .	87	9	8				
	(c) Cooking sheds—							
	8 blocks, each containing—							
	2 sheds, each . . .	45	10	9	1,219	A portion 5' x 5' in each shed to be enclosed as fuel store. Sheds to be built back to back.	92 I. I.	
	For the band 1 shed . . .	16	10	9	104			
	(d) Latrines, 8 of 6 seats each					See remarks against (i) (b)		
	(v) A battalion in the hills.							
	(a) 16 half company barracks, each for—							
	2 N. C. Os each . . .	10	8	12	4,502	See remarks against (iv)	91-I. I. modified.	
	48 men, 4 rooms, each . . .	30	20	12				
	Verandah in front . . .	138	5	8				
	Store room . . .	12	8	8	3,849			
	(b) Band barrack for—							
	1 N. C. O. . . .	10	8	12				
	16 men, 2 rooms, each . . .	30	20	1				
	Store room . . .	10	8	1				
	Verandah in front . . .	71	5					
	(c) Subsidiary buildings . . .	as	in	(iv)				

Accommodation—Indian Troops—Appt. V.

Item No.	Buildings	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type when	
		Ft.	Ft.	Ft.	Sq. ft.			
174	QUARTERS FOR FOLLOWERS FOR ALL SERVICES. In blocks as convenient. (i) <i>In the plains</i> Married men's quarters Single (ii) <i>In the hills.</i> Married men's quarters Single (a) Latrines— 8 seats per cent of strength. (iii) <i>Private followers of a regiment of Indian cavalry.</i> 1 block of 4 quarters, each 8 quarters, each 1 block of 8 quarters, each 12 quarters, each 4 blocks, each of 10 quarters, each 4 blocks, each of 20 quarters, each	12 8 8 4½	10 10 10 10	10 10 9 9			For the plains 120 sq. ft. each per married man and 60 sq. ft. per single man. For the hills 80 and 45 sq. ft. respectively; the single men's accommodation being divided into rooms of various sizes to suit the different castes. See remarks against latrines for married men. The buildings to be provided at Government expense are intended to house 400 single men, 4 men being accommodated in each of the large rooms and 2 men in each of the smaller ones, the smaller rooms may, however, be used for housing married men if considered desirable by the O. C. regiment. For sweepers For barbers, bhutias and dhobies For grass-cutters	95 I <

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series
		Ft.	Ft.	Ft.	Sq. Ft.		
	(c) <i>A detached company S. & M.</i> 1 compartment . . . S A ammunition store	25 10	15 8	10 8	592	...	2 I I. modified
176-A	BARRACK. (i) <i>A regiment of cavalry—</i> 10 houses, each . . . 10 houses, each . . . 8' verandah in front	20 10	8 8	10 10	4,280 4,587	A courtyard 10' wide is allowed at the back of each house	
176-B	CAMEL BREED AND BARRACK FOR CAMEL SOWARS. (i) <i>A regiment of cavalry—</i> Block containing— 1 shed for 8 camels . . . 2 bhoosa khanaas, each . . . Barrack containing— 1 room for 8 sowars . . . 8' verandah on both sides	86 13 24	15 10 20	12 12 13	1,602 308 1,289	The bhoosa khanaas to be provided one on each side of camel shed 4 equipment stores each 4' x 5', to be provided at one end of the room.	89 I C modified
177	CARPENTER'S AND COLLARMAKER'S SHOPS. For a mountain battery— Carpenter's shop Collarmaker's shop	20 20	20 20	10 10	1,400	A 9' verandah in front.	85 I.M. B
178	DRAINAGE					Will be carried out by the corps under proper direction, but if masonry drains are required they will be built by the M W S or P. W. D	
178-A	DURBAR SHED. (i) <i>A regiment of cavalry—</i> 1 open shed . . .	24	20	10	621		
178-B	EQUIPMENT STORE AND OFFICE. For a detached company S & M. 3 store rooms, each . . . Office . . . (d) Latrine . . .	30 30 2	23 17 2	13 12 acres	3,602	A 9' verandah on two sides of office	
179	FIRE ENGINE SHED.	see item		28			
180	FORGE For a mountain battery— Forge . . . Store . . . Shoemaking shed . . .	20 8 48	20 20 6	10 10 6	1,070		

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and area.
181	GRAIN STORE.	Ft	Ft	Ft.	Sq. Ft.		
	(i) <i>A regiment of cavalry—</i> 2 rooms, each . . .	80	20	12	3,518	To be provided in two blocks	
	(ii) <i>A mountain battery—</i> Store room . . .	18	16	10	420		
183	GUN SHED.						
	<i>A mountain battery—</i> Shed . . .	48	24	10½		10' verandah in front.	24A } R. 24B } A.
184	HARNESS ROOMS. <i>A mountain battery—</i>	as in item		81	(iii)		29A R.A.
185	MAGAZINE. <i>For a mountain battery</i>	14	14	14	400	The remarks against item 83 apply. For Indian Infantry for small arms ammunition, as in item 109. For Indian Cavalry for small arms ammunition, as in item 43.	
185-A	MAGAZINE FOR EXPLOSIVES. <i>For a detached company S & M</i> Magazine . . . Gun cotton store . . .	12 7	12 4	10 10	419	A 6' verandah in front See para. 48.	
185-B	NIGHT PICKET GUARD ROOM <i>A mountain battery</i> 1 room . . .	36	12	12	603		
186	ORDERLY ROOM AND OFFICE <i>For a regiment of cavalry or battalion of infantry</i> Commanding officer's office Adjutant's office . . . Quartermaster's office . . . 4 rooms for squadron or double company commanders, each	20 16 16 12½	18 18 18 12	18½ 18½ 18½ 13½	3,760	With a verandah 8½' all round, containing a record room 15' x 7' and a bathroom 7' x 7'. Rent will be assessed under the ordinary rules, subject to a maximum of Rs. 30 per month.	
187	PARADE GROUNDS.	no size laid down.					
188	PIONEER EQUIPMENT STORES. <i>For pioneer battalions only—</i> Store-room . . .	40	13	9½	1,300	A 10' verandah on one side only. See remarks against item 176.	
189	PIONEER WORKSHOP. Shed Room for carpenter's tools Room for smith's tools Material store Room for n. c. o. in charge . . .	60 12 12 12 12	20 20 9½ 9½ 10	12 12 12 12 12	2,643	For Pioneer battalions only. To be constructed by the corps, where practicable, under contract.	38 I. I.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
		Ft.	ft.	Ft.	Sq. ft.		
190	QUARTER GUARD AND CELLS AND QUARTERMASTER'S STORES					Existing quartermaster's stores are not to be enlarged unless absolutely necessary, reasons	
	(i) <i>A regiment of cavalry—</i>						
	Guard room for 12 men	36	16	12	2,300		
	Cells, 2 each	10	10	12			
	Quartermaster's stores, 2 rooms, each	16	10½	12		guards, except under very special circumstances to be fully reported. Each man of the guard is to receive 43 sq. feet.	
	(ii) <i>A mountain battery in the plains or hills—</i>						
	Guard room	28	12	12	2,200	For the Indian personnel of heavy batteries R G A.,	2 I. I. modified.
	Lock-up	12	12	12		guard room 14' x 14' for 1 n. c. o and 3 men, and a lock-up	
	Cells, 2 each	10	10	12		14' x 10' with 8' verandah in front should be given if convenient, this accommodation may be provided in the same block as another building.	
	Quartermaster's store, 2 rooms	16	12	12			
	(iii) <i>A battalion, Peshawar, Rawalpindi, Lahore, Meerut and Lucknow Divisions, Kohat, Bannu, and Deraet Bds., in the plains or hills—</i>						
	Guard room for 15 men	48	16	12	4,000	This includes accommodation for mobilization stores.	2 I I.
	Lock up (2 prisoners)	16	12	12			
	Cells, 2 each	10	10	12			
	Quartermaster's stores—						
	1 room	16	14	12			
	1 " "	16	23	12			
	1 " "	16	30	12			
	(iv) <i>A battalion, Secunderabad Division.</i>						
	Guard room for 15 men	48	16	12	3,620		2 I I modified.
	Lock-up (2 prisoners)	16	12	12			
	Cells and stores	as	in	(iii)			
	(v) <i>A battalion, in stations under the Bombay Government.</i>						
	Guard room for 15 men	48	16	12	3,560		2 I I modified.
	Lock-up (2 prisoners)	16	12	12			
	Cells and stores	as	in	(iii)			
	(vi) <i>A detached company S. & M.</i>						
	Guard room	33	16	12	2,425	An 8' verandah in front of the whole building	2 I I. modified.
	Lock-up	12	12	12			
	Cells, 2 each	10	10	12			
	Store room	24	12	12			

Item No.	Buildings.	Length ft	Breadth ft	Height. ft	Plinth area, approximate. sq ft	Remarks.	Type plan and series
196	STABLES— <i>contd</i>						
	1 stable for 78 mules—						
	2 compartments each for 20 mules, each . . . 140	12	7½	} 9940			
	2 compartments, each for 18 mules, each . . . 133	12	7½				
	Central passage . . . 276	4	...				
	(ii) For a 7-pr. gun battery—						
	2 stables each for 70 mules—					The number of animals is:—	
	2 compartments, each for 16 mules, each . . . 126	12	7½	} 8930		Ponies . . . 5	
	2 compartments, each for 17 mules, each . . . 113	13	7½			Ordnance mules . . . 127	
	Central passage . . . 243	4	...			Baggage " . . . 80	
	1 stable for 72 mules—					TOTAL . . . 212	
	4 compartments, each for 18 mules, each . . . 126	12	7½	} 9,180			
	Central passage . . . 253	4	...				
	(iii) For a regiment of cavalry—						
	4 stables each for 78 horses each . . . 292½	14	...	} 11,173		For each squadron 154 stalls	18 B. C.
	Central passage . . . 293	4	...			Each stall to be 14' x 7½'.	
	4 stables, each for 76 horses, each . . . 285	14	...	} 10,837		Stalls to be arranged in two rows with a central passage 4' wide.	
	Central passage . . . 286½	4	...				
196-A	STORE ROOMS						
	(i) For a regiment of cavalry—						
	1 room . . .	45	20	12	1,104		
197	VETERINARY HOSPITAL (OR HORSE INFIRMARY)						
	(i) A regiment of cavalry—						
	2 rooms, each . . . 13	9	13	} 6,990		Boilers required for boiling grain are to be supplied and maintained by the M W S	103 I. C.
	4 compartments, each . . . 25½	12	13			6½ verandah on three sides	
	2 sleeping rooms . . . 13	9	13			Jhampas are also allowed when considered absolutely necessary by the veterinary officer	
	4 loose boxes . . . 13	8	14				
	2 " " " . . . 17½	8	13				
	Central passage . . . 112½	4	10½				
	Isolation block containing—						
	1 box . . .	114	14	15½	536	A 5½' verandah on two sides, with a store room 5½' x 6' in one verandah	
	(ii) A mountain battery—						
	6 mule standings, each . . . 12	7	10	} 1,300		Height at eaves 7', sides open, walls extend. In some stations it may be necessary to give side walls and doors for the boxes and stalls.	
	4 horse boxes each . . . 12	7	10				
	Veterinary store . . . 13	9	0				
	Central passage . . . 42	4	10½				
198	WELLS OR WATER-SUPPLY (WITH TROUGHS FOR ANIMALS AS REQUIRED).					The maximum number of wells for a regiment of cavalry or a battalion would be 5, i.e., 1 for each squadron or double company and 1 for the hospital; for a mountain battery no scale is laid down. Each well should have a broad platform for washing	

The number of animals is:—

Ponies . . .	6
Ordnance mules . . .	127
Baggage " . . .	80
TOTAL . . .	212

For each squadron 154 stalls
Each stall to be 14' x 7½'.

Stalls to be arranged in two rows with a central passage 4' wide.

Boilers required for boiling grain are to be supplied and maintained by the M W S
6½ verandah on three sides
Jhampas are also allowed when considered absolutely necessary by the veterinary officer

A 5½' verandah on two sides, with a store room 5½' x 6' in one verandah

Height at eaves 7', sides open, walls at ends. In some stations it may be necessary to give side walls and doors for the boxes as stalls.

The maximum number of wells for a regiment of cavalry or a battalion would be 5, i.e., 1 for each squadron or double company and 1 for the hospital; for a mountain battery no scale is laid down. Each well should have a broad platform for washing

18 B. C

103 I. C.

Item No.	Buildings, &c.	Length. Ft.	Breadth. Ft.	Height. Ft.	Plinth area, approximate Sq. Ft.	Remarks.	Type plan and serial.	
201	ENCLOSURE WALL OR FENCE.					As required, a wire fence as being less costly is suitable. Not generally given in the hills.		
202	HOSPITAL GUARD-ROOM. <i>In the plains or hills.</i> For a regiment of cavalry, a mountain battery, or battalion					Is not now usually required. The G. O. C. will decide as to the necessity for its provision.		
203	Room for 4 men MORTUARY. <i>In the plains or hills.</i> For a regiment of cavalry, a mountain battery, or a battalion—	16	12	12	490	A simple enclosed shed, with a bracket and hook for suspending a spring balance on.		
	A room	12	13	...	240			
204	QUARTERS FOR SUB-ASSISTANT SURGEONS. <i>In the hills or plains.</i> (i) Senior or 1st grade sub-assistant surgeon—					Two sub-assistant surgeons are authorized for each regiment of cavalry or infantry and one for mountain battery or detached company S. and M. In the hills the height of the main rooms will be reduced to 9', and if the site will not admit of it the courtyard may be omitted.	33	
	1 Room	16	12	13½	738			
	8' verandah in front	29½	8	...				
	Cookhouse	8	6	8		59		
	Bath-room	4	4	7½	32	An open courtyard 29½' x 17½' containing the cookhouse and bath room to be provided		
	Latrine	6	5	7½	60			
	(ii) 2nd or 3rd grade sub-assistant surgeon—							
	1 Room	16	12	13½	433		33	
	8' verandah in front	16	8	...				
	Cookhouse	8	6	8	59	An open courtyard 32' x 16½' containing the cookhouse and bath room to be provided.		
	Bath-room	4	4	7½	32			
	Latrine	6	5	7½	60			
205	QUARTERS FOR HOSPITAL SERVANTS (i) <i>In the plains.</i> For each married man, a separate quarter	12	10	10		For scale see A. T. of the unit. One-third are to be provided for as married men and two-thirds as single men; the quarters for the latter should be divided into rooms to meet the different castes. If the single men's accommodation cannot be combined, it may be necessary to increase the size somewhat.		
	For each single man, floor area	6	10	10				
	(ii) <i>In the hills.</i> For each married man, a separate quarter	10	8	8				
	For each single man, floor area	5	10	8				
206	QUARTERS FOR WARD ORDERLIES. For a regiment of cavalry, a mountain battery, or a battalion.							
	(i) <i>In the plains.</i> 1 married man's quarter	12	10	10	410			
	Room for 3 single men.	18	10	10				
	(ii) <i>In the hills.</i> 1 married man's quarter	10	10	8	380			
	Room for 3 single men	15	10	8				
						Only to be provided at the discretion of the O. C. the station when the hospital is at a considerable distance from the lines.		

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. Ft.		
207	KAHARS' HUT. <i>For a regiment of cavalry, mountain battery, or battalion or wing.</i> (i) <i>In the plains.</i> Hut for 4 kahars (ii) <i>In the hills.</i> Hut for 4 kahars (iii) <i>For a detached company S. & M.—</i> Hut for 4 kahars	20	12	10	360	To be built near the quarter-guard. Ditto do.	
208	STOVES FOR BURNING DEJECTA.	as	in	item	162		
209	WELL AND WASHING PLATFORM.					Should have a broad and well raised platform, but without roof and screen wall for washing purposes. A separate well for drinking purposes is not usually required. Water will usually be laid on in the hills	
	LASCARS' QUARTERS.						
210	QUARTERS FOR LASCARS (HIGHER GRADE). (i) <i>For each man 2 rooms each with a 6' verandah</i> (ii) <i>For each man 1 room with a 6' verandah</i>	12	10	13½		Authorized for serangs, tindals, clerks, and 1st class mistris of the S. M. M. establishment. Authorized for 2nd class mistris of the S. M. M. establishment.	
211	QUARTERS FOR LASCARS (LOWER GRADE) (i) <i>For each married man, 1 room</i> (ii) <i>For each single man, floor area</i>	12	10	13½		Authorized for marine, coast defence and lower grade lascars of the S. M. M. Married quarters are to be provided for 10 per cent of the strength. On Butchers' Island 80 sq. ft. per man in separate huts is allowed as a minimum.	
	SUPPLY AND TRANSPORT CORPS.						
212	BAKERY. (i) Bread store. <i>For a garrison of—</i> 300 men and under 300 to 700 men 700 to 1,000 „ 1,000 to 1,400 „ 1,400 to 2,000 „ (ii) Wheat or flour store. <i>For a garrison of—</i> 300 men and under 300 to 700 men 700 to 1,000 „ 1,000 to 1,400 „ 1,400 to 2,000 „ (iii) Shed for cleaning wheat. <i>For a garrison of—</i> 300 men and under 300 to 700 men 700 to 1,000 „ 1,000 to 1,400 „ 1,400 to 2,000 „	14	14	...	310	All windows to open inwards and to be fitted with fine galvanised wire netting. Bread racks should consist of stone uprights, with shelves of galvanised wire netting 2' wide and 1½' apart.	65 S. & T.
		16	16	...	390		
		18	18	...	460		
		20	18	...	510		
		20	20	...	550		
		14	14	10	310	Intended for 1 month's consumption.	
		16	16	10	390		
		20	18	10	510		
		25	18	10	610		
		30	20	10	790		
		16	14	10	304	When flour is received from an out-station mill, this shed will not be required. It should have open archways on one side.	
		16	16	10	360		
		20	18	10	510		
		25	18	10	610		
		30	20	10	790		

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. Ft.		
212	BAKERY—contd.						
	(iv) Bullock shed. For a garrison of 1,600— Shed for bullocks	250	12	9	3,930	Should be a semi-permanent structure.	
	(v) Office. For a garrison of—						
	800 men and under	16	12	...	200		
	300 to 700 men	20	12	...	360		
	700 to 1,200 "	25	12	...	440		
	1,200 to 2,000 "	30	12	...	620		
	(vi) Open shed For a garrison of 1,600— Shed with 8 ovens	10	18½	10	2,400	For method of calculating the number of ovens required see T. P. 66. The ovens (2' 9" high) should be in pairs with a furnace	
	(vii) Covered passage. From ovens to the kneading room.					prevent the cold air affecting the bread before it is baked. Would only be required in certain parts of India.	
	(viii) Soojas store	no size given					
	(ix) Kneading room. For a garrison of 1,600 men—						
	Kneading room	40	20	10	1,410		
	Yeast "	12	8	9			
	Verandah "	27½	8	9			
	(x) Fuel store. For a garrison of 1,200 men—						
	Shed	20	12	9	300	For method of calculating the size required, see the T. P. 66 & T. Half a month's supply (400 maunds). Size will vary according to the amount to be stored and strength of garrison	
	(xi) Well or water supply					1 for each bakery.	
	(xii) Enclosure. For a garrison of—						
	800 men and under	120	100				
	300 to 700 men	150	130				
	700 to 1,500 "	200	150				
	1,500 to 1,400 "	250	120				
	1,400 to 2,000 "	250	200				

Item No.	Buildings.	Length. Ft.	Breadth. Ft.	Height. Ft.	Plinth area, approximate. Sq. ft.	Remarks.	Type plan and series
213	CATTLE AND SHEEP YARDS.						
	(i) <i>Cattle shed.</i>						
	Shed for 40 cattle	72	22	10	1,920	The sheds should be of temporary construction with impermeable floors. Eight bullocks or forty sheep are sufficient for one day's supply for 1,000 men.	2 B, S. & T.
	(ii) <i>Sheep shed.</i> Shed for 200 sheep	same as	above		1,920		
	(iii) <i>Yard for cattle and sheep</i>	no	size	laid down		Mud walls 5' high all round.	126 B C.
	(iv) <i>Yard for fodder.</i>		ditto			Ditto ditto.	
	(v) <i>Well with watering trough.</i>						
	(vi) <i>General enclosure</i>	no	size	laid down		Plenty of space should be allowed for the cattle to move about in.	
213-A	GUARD ROOM.						
	(i) <i>For bullock transport—</i> Guard room 10' verandah in front	14	15	12	500	To be built in the same block as quartermaster's stores. For 3 to 4 or 5 to 6 half troops.	
213-B	OYCE						
	(i) <i>For bullock transport—</i> 1 room 10' verandah in front	10	15	13½	428	To be built in the same block as quartermaster's store. For 3 to 4 or 5 to 6 half-troops	
213-C	QUARTERMASTER'S STORES.						
	(i) <i>For bullock transport—</i>					To be built in the same block as guard room,	
	(a) For 3 to 4 half troops— Store room for— Half mounting clothing stock and repairing gear	10	15	12	704		
	Grain store 10' verandah in front	10	15	12			
	(b) For 5 to 6 half troops— Store room for— Half mounting clothing stock and repairing gear	15	15	12	931		
	Grain store 10' verandah in front	15	15	12			
213-D	SICK LIVES.						
	(i) <i>For bullock transport—</i>						
	(a) For 3 to 4 half troops— Pharmacy Open shed, with stand- ings for 4 animals, each	10	10	13	616		
	(b) For 5 to 6 half troops— Pharmacy Open shed, with stand- ings for 6 animals, each	12	7	10			
		12	12	12	878		
		13	7	10			

Item No.	Buildings	Length. Ft.	Breadth. Ft.	Height. Ft.	Plinth area, approximate. Sq. Ft.	Remarks	Type plan and service.
214	STORE ROOMS (i) Store room for transport gear. (ii) Store room for kerosene oil. (iii) Store room for malt liquor. (iv) Store room for rum.	no	size	laid down ditto ditto		Each case requires the sanction of the G. of I. Saddle rooms should be included in gear stores. Imported malt liquor is to be stored in well built rooms with pucca floors, sloped to carry off the water. At hill stations, this is unnecessary. Ditto ditto.	
215	INFIRMARIES FOR TRANS- PORT ANIMALS.					Each case requires the sanction of the G. of I. Accommodation should be provided for 10 per cent of the strength. Requires the sanction of the G of I.	
216	TRANSPORT OFFICE.					For scale see A. T. Transport.	
217	SHEDS FOR TRANSPORT CARTS.					Extreme width of a cart is 5' 10" and length, including poles, 15' 8", but poles can overlap.	
218	SHEDS FOR BREAD CARTS. For one cart	18	10	11	290	Sheds for bread carts are authorized; 1 cart should be allowed per regiment or detachment.	
219	SHEDS FOR MEAT CARTS. Same as for bread carts	...	...	...	290	Same as above.	
220	SHEDS FOR BULLOCKS FOR BREAD AND MEAT CARTS. Space per bullock	12	6	...	...	2 bullocks to each cart.	
221	SLAUGHTER HOUSE AND YARD. (i) Slaughter stand (ii) The gallows (iii) The meat hanging house. (iv) Cess-pools and offal pits (v) Well. (vi) Enclosure wall	A pucca platform 15' wide, length varying according to requirements, raised a few inches above ground level and sloping into a shallow saucer drain about 2' wide and 1' deep, running into a pucca tank outside the enclosure. C whole length of the gallows connecting with the pucca tank outside. Should be built near the slaughter stand in a corner of the enclosure, with a door in the outside wall for the issue of the meat. Width 16', height 15', and length according to number of carcases to be stored allowing 3 for each bullock and 1' for each sheep. Shed to be well ventilated, open in front, with windows in the back wall. Gallows to be given in the meat shed and a pucca floor and drain communicating with the same reservoir outside.				The reservoir mentioned above is intended merely as a temporary receptacle, and it is necessary that blood and offal should be removed to a distance As required.	70 S. & T.

Item No.	Buildings.	Length.	Breadth.	Height.	Plinth area, approximate.	Remarks.	Type plan and series.
		Ft.	Ft.	Ft.	Sq. ft.		
222	WELL FOR TRANSPORT LINES.					Drinking trough will be required.	125 B
223	WORKSHOPS					To be built in the same block as quartermaster's store.	
	(a) For 3 to 4 half troops— Blacksmith's shop Carpenter's shop 10' verandah in front.	20 20	15 15	12 12	1,275	To be open in front. A store 8' x 8' for tools to be provided in a corner of each shop.	
	(b) For 5 to 6 half troops— Blacksmith's shop Carpenter's shop 10' verandah in front.	30 30	15 15	12 12	1,854	For other units the sanction of Government of India is required.	
	DAIRY FARM BUILDINGS.						
224	MANAGER'S, ASSISTANT MANAGER'S, OVERSEER'S AND ASSISTANT OVERSEER'S QUARTERS— (Warrant or n. c. o. on unattached list)					The provision of quarters will be governed by A. R. L. Vol. II, para. 443. If the manager or overseer has a warrant or n. c. o. on the unattached list, he is entitled to Class D. quarters as in item 10 with subsidiary buildings, except stable, which latter will be provided with the other farm buildings.	
225	OFFICE.						
	(i) In the plains. Manager's room Clerk's room	3 units 1 unit		15 15	...	9' verandah in front, the unit of accommodation for the plains is 72 square feet. For all offices minimum of three rooms to be given.	
	Record room	2 units		15	...		
	(ii) In the hills Manager's room Clerk's and record room	3 units 1 unit		12 12	...	6' verandah in front. The unit of accommodation for the hills is 43 square feet. For all offices a minimum of two rooms to be given.	
226	DAIRY OR BUTTER FACTORY.					According to local conditions	

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